ORDER NO. RD83072080C1

Service Manual

Car Audio

RM-1100

FM-AM-FM STEREO
CASSETTE DECK TUNER AMPLIFIER

CUSTOM-MADE FOR HONDA



⚠ WARNING

This service literature is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service literature by anyone else could result in serious injury or death.

■ SPECIFICTIONS

General

Power Source:	DC 12 V (Negative ground only)
Test Voltage:	DC 14 V
Power Consumption:	0.8A at maximum power output (Memory backup 1 mA)
Dimensions:	208 mm(W)×64 mm(H)×144 mm(D) (8 3/16×2 9/16×5 11/16) without bracket
Weight:	1.7 kg (3 lb 3/4 oz) without bracket

FM Tuner Section

Frequency Range:	87.5~108 MHz
Usable Sensitivity:	8 dB (S/N 30 dB)
Signal to Noise Ratio:	55 dB
Stereo Separation:	35 dB at 1 kHz
THD:	0.5%
IF Frequency:	10.7 MHz

AM Tuner Section

Frequency Range:	520~1610 kHz
Usable Sensitivity:	34 dB (S/N 20 dB)
Selectivity:	50 dB (±10 kHz)
IF Frequency:	450 kHz

Cassette Deck Section

Tape System:	Auto-reverse
Wow & Flutter:	0.15% (WRMS)
Stereo Separation:	35 dB at 1 kHz

Intercom Section

Mike Input Impedance:	600Ω
Headphone Output:	0.5 W (16Ω/CH)

Specifications are subject to change without notice.

Panasonic

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50 Meadowland Parkway,
Secaucus. New Jersey 07094

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P.O. Box 774
Honolulu, Hawaii 96808-0774

Matsushita Electric of Canada Limited
5770 Ambler Drive, Mississauga,
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Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.
Ave, 65 De Infanteria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630

LOCATION OF CONTROLS AND COMPONENTS

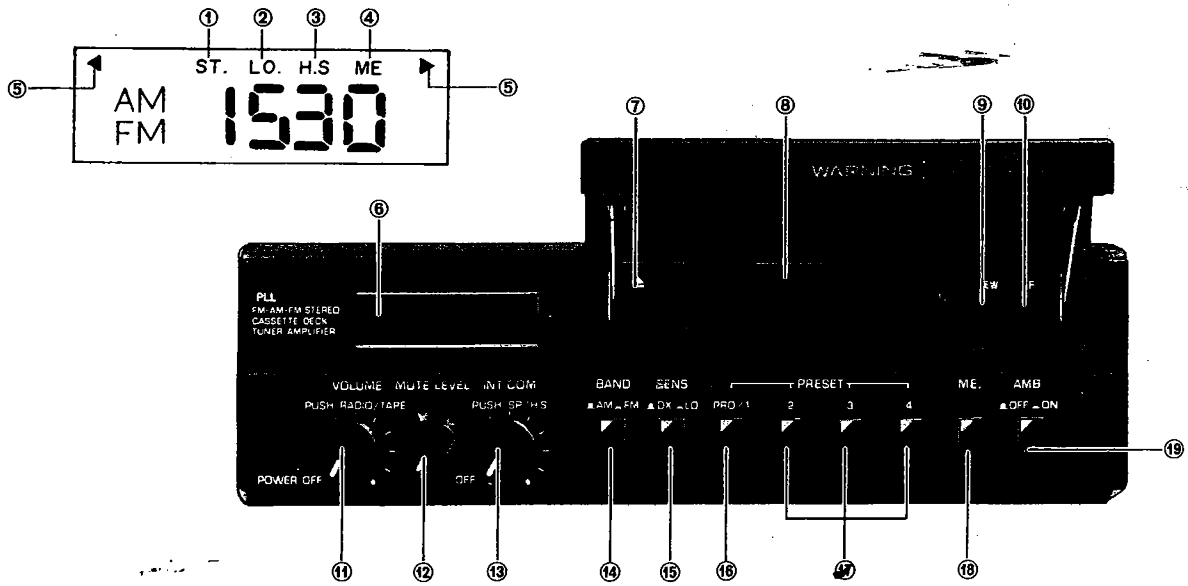


Fig. 1

① FM Stereo Indicator
② Local Indicator
③ Headset Indicator
④ Memory/Metal Indicator
⑤ Direction Indicators
⑥ LCD Display
⑦ Eject Button
⑧ Tape Slot
⑨ Rewind Button (REW)
⑩ Fast Forward Button (FF)
⑪ Radio/Tape Switch, Power Switch, Volume Control (PUSH RADIO/TAPE, POWER OFF)
⑫ Mute Level Control (MUTE LEVEL)
⑬ Speaker/Headset Switch Intercom Control (PUSH SP/HS)
⑭ Band Switch (AM, FM)
⑮ Sensitivity Switch (DX, LOCAL)
⑯ Program/Preset Switch (PRO/1)
⑰ Preset Switches (2, 3, 4)
⑱ Metal/Memory Switch (ME)
⑲ Ambience Switch (ON, OFF)

DISASSEMBLY INSTRUCTIONS

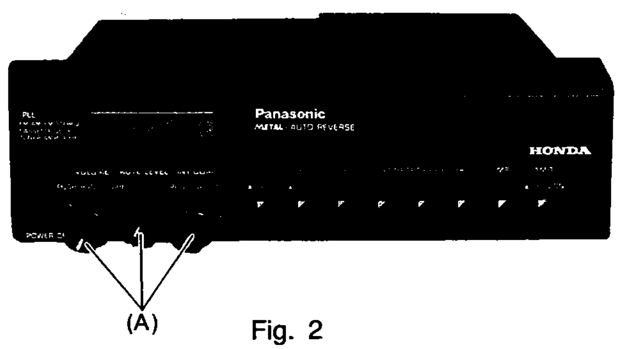


Fig. 2

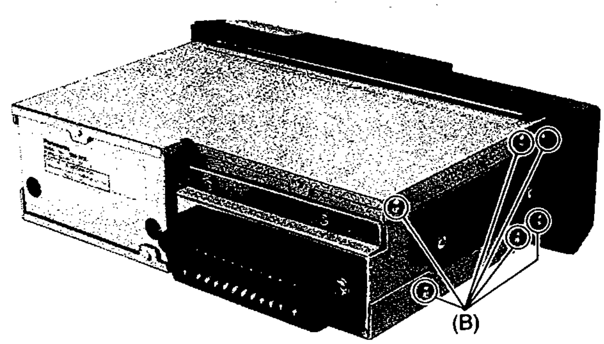


Fig. 4

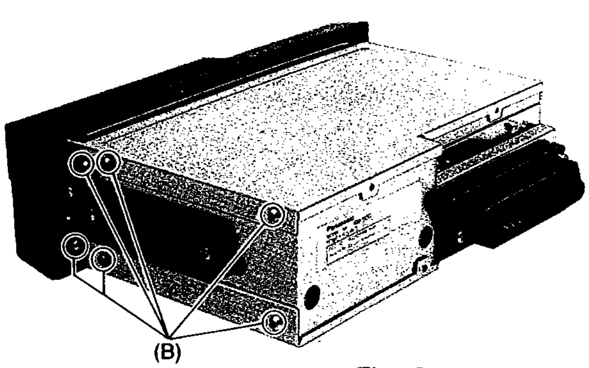


Fig. 3

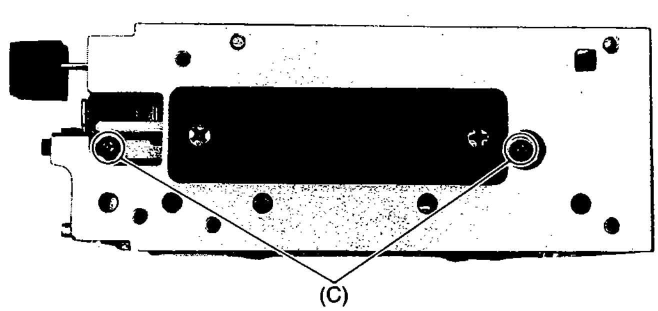


Fig. 5

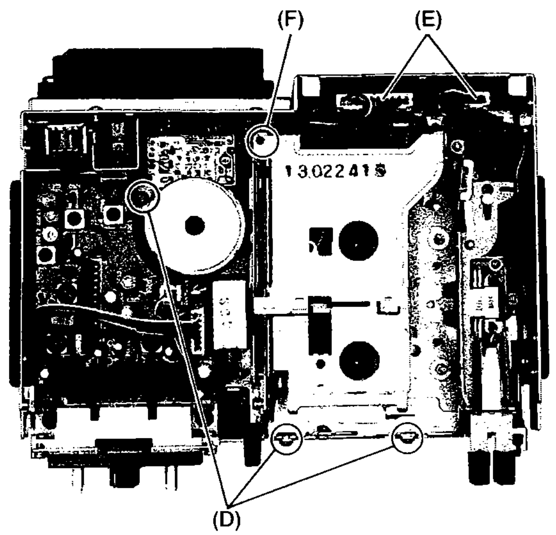


Fig. 6

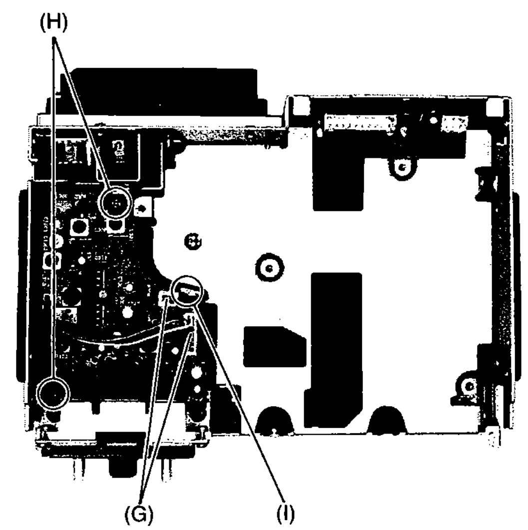


Fig. 7

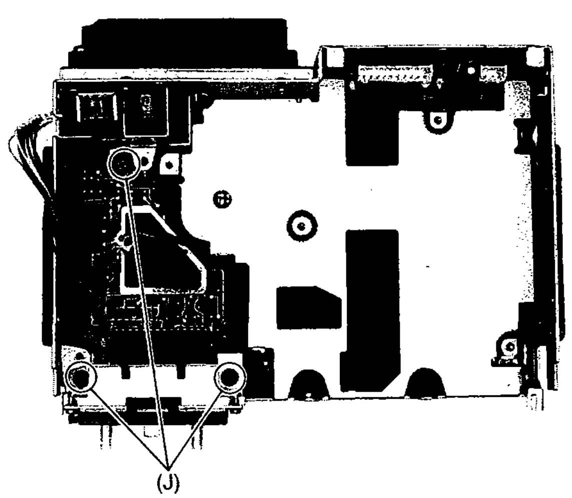


Fig. 8

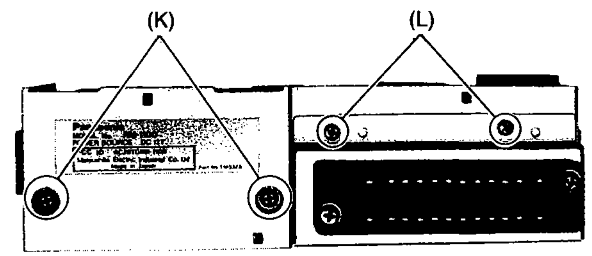


Fig. 9

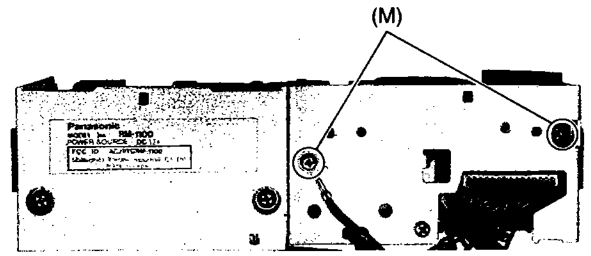


Fig. 10

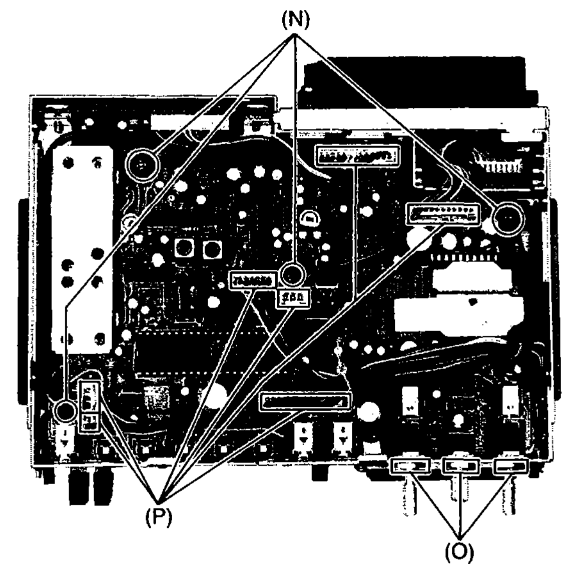


Fig. 11

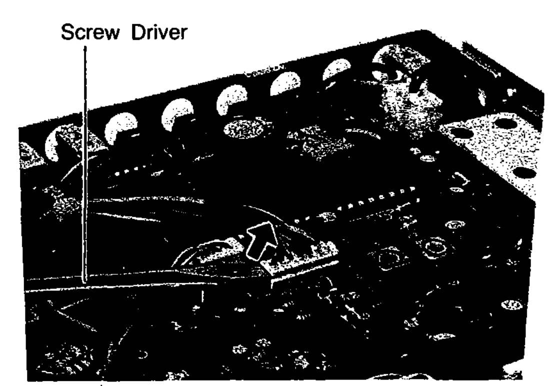


Fig. 12

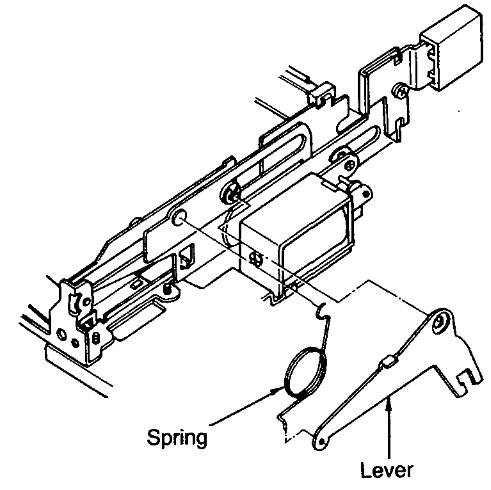


Fig. 13

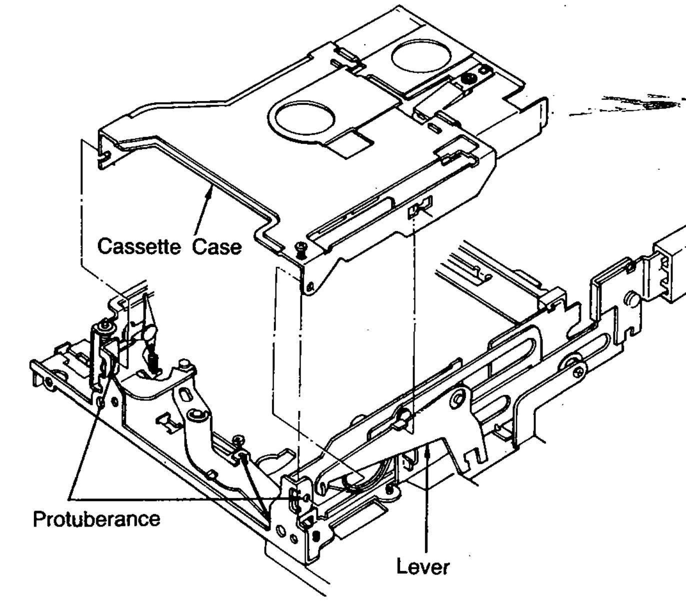
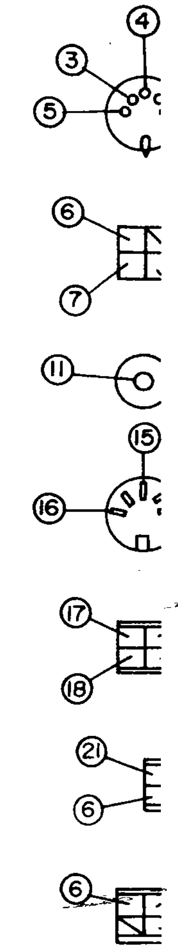


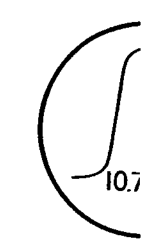
Fig. 14

Ref. No.	Procedure	Shown in Fig.—.	To remove—.	Remove—.
1	1, 2	2	Front Panel	Knob .... (A)×3
2		3, 4		Screw (3×6) .... (B)×12
3	1~5	5	Mechanism	Screw (2.6×5) .... (C)×2
4		6		Screw (2.6×5) .... (D)×3
5		6		Socket *1 .... (E)×2
6	1~6	6	Cassette Case *2	Loosen screw (2×3)......................... (F)×1
7	1~9	7	AM Circuit Board	Socket *1 .... (G)×2
8		7		Screw (3×6) .... (H)×2
9		7		Twist the chassis .... (I)×1
10	1~10	8	LCD Circuit Board	Screw (3×6) .... (J)×3
11	1~5, 11	9	Deck EQ & Ambience Circuit Board	Screw (3×6) .... (K)×2
12	1, 2, 12, 13	9	Power Source Circuit Board	Screw (3×4) .... (L)×2
13		10		Screw (3×4) .... (M)×2
14	1, 2, 14~16	11	Main Circuit Board	Screw (3×6) .... (N)×4
15		11		Nut (7∅) .... (O)×3
16		11		Socket *1 .... (P)×7

*1. Remove socket in the direction of arrow as shown in fig. 12.
*2. To reassemble, note the following.
(1) Insert the lever and spring in mechanism, as shown in fig. 13.
(2) Insert the cassette case as shown in fig. 14.

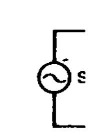


■ WAVE F

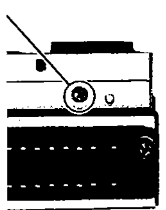
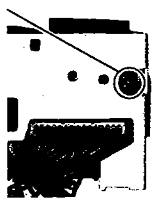
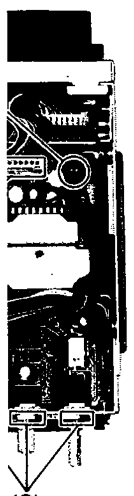


Fig

■ AM RF



RM-1100



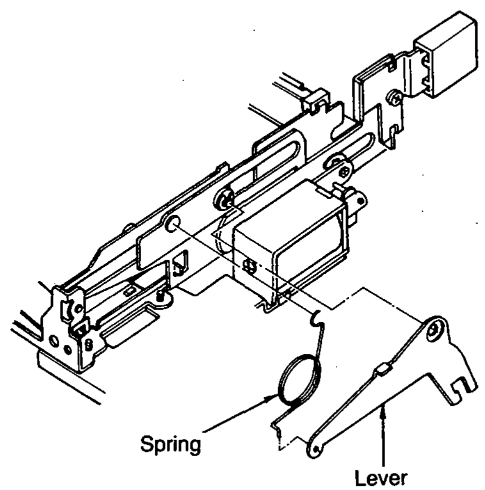


Fig. 13

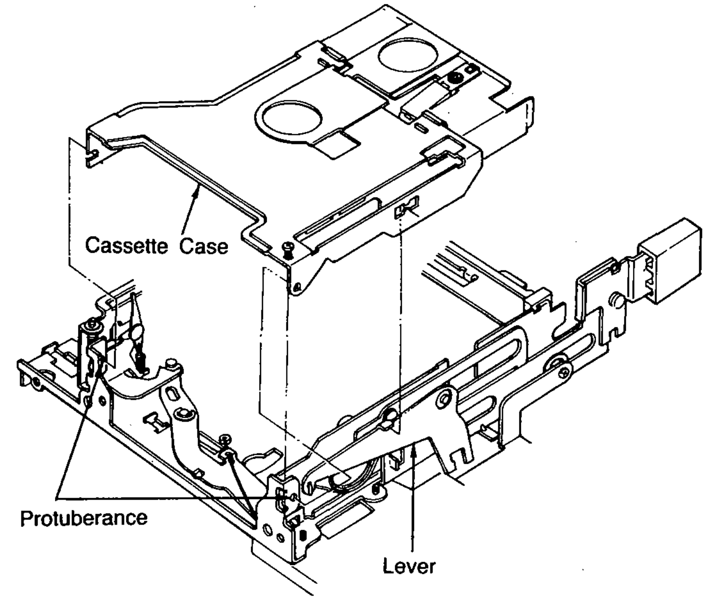


Fig. 14

Ref. No.	Procedure	Shown in Fig.—.	To remove—.	Remove—.
1	1, 2	2	Front Panel	Knob .... (A)×3
2		3, 4		Screw (3×6) .... (B)×12
3	1~5	5	Mechanism	Screw (2.6×5) .... (C)×2
4		6		Screw (2.6×5) .... (D)×3
5		6		Socket *1 .... (E)×2
6	1~6	6	Cassette Case *2	Loosen screw (2×3) .... (F)×1
7	1~9	7	AM Circuit Board	Socket *1 .... (G)×2
8		7		Screw (3×6) .... (H)×2
9		7		Twist the chassis .... (I)×1
10	1~10	8	LCD Circuit Board	Screw (3×6) .... (J)×3
11	1~5, 11	9	Deck EQ & Ambience Circuit Board	Screw (3×6) .... (K)×2
12	1, 2, 12, 13	9	Power Source Circuit Board	Screw (3×4) .... (L)×2
13		10		Screw (3×4) .... (M)×2
14	1, 2, 14~16	11	Main Circuit Board	Screw (3×6) .... (N)×4
15		11		Nut (7∅) .... (O)×3
16		11		Socket *1 .... (P)×7

*1. Remove socket in the direction of arrow as shown in fig. 12.
*2. To reassemble, note the following.
(1) Insert the lever and spring in mechanism, as shown in fig. 13.
(2) Insert the cassette case as shown in fig. 14.

HARNESS CONNECTION

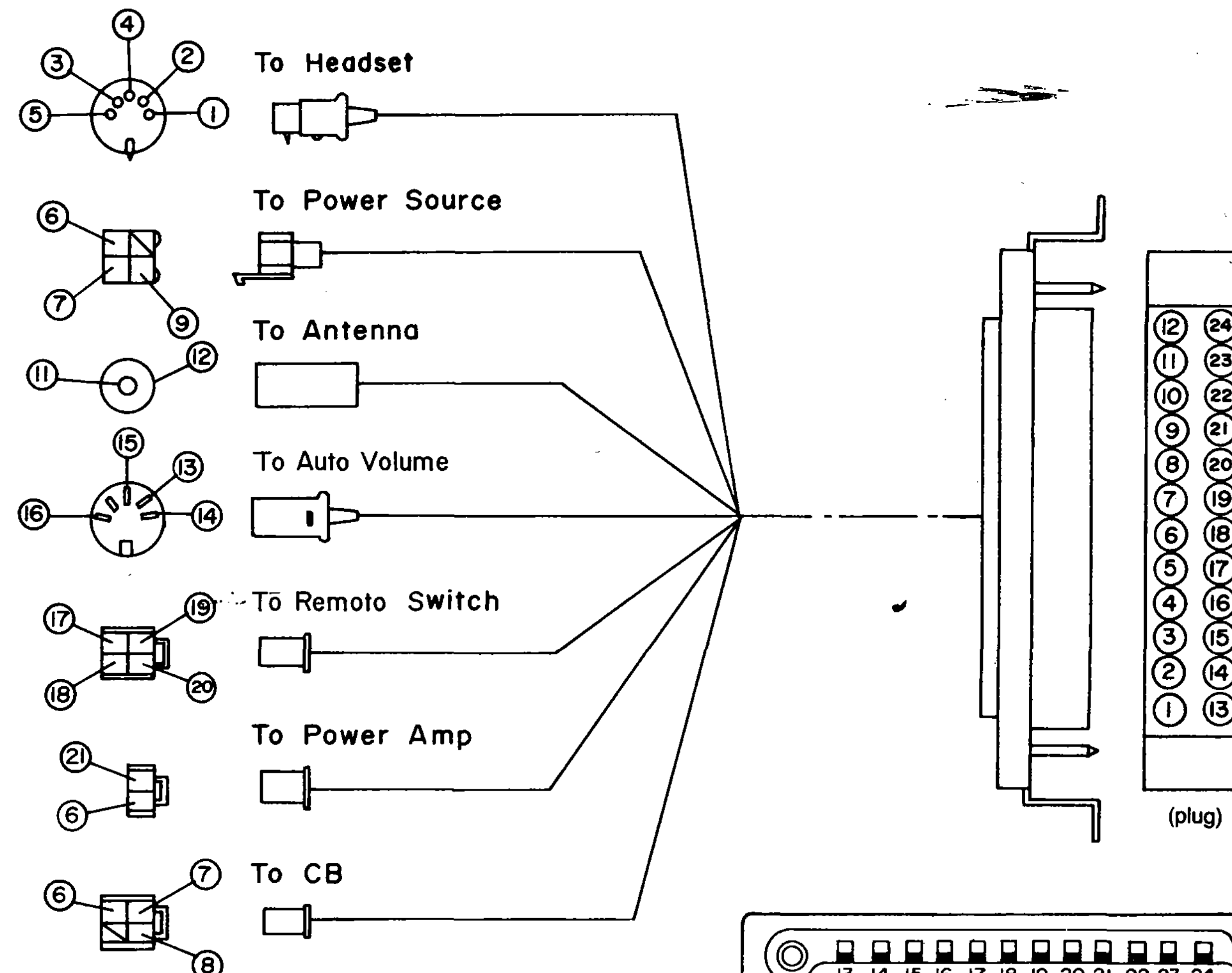
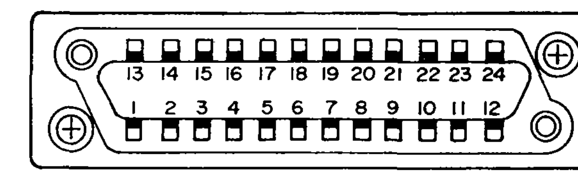


Fig. 15



(socket)

① Microphone	⑬ Rch
② Earth	⑭ Lch
③ Rch	⑮ Earth
④ Earth	⑯ +B Out
⑤ Lch	⑰ Mute
⑥ Acc	⑱ Up
⑦ CB	⑲ Down
⑧ Earth	⑳ Earth
⑨ Earth	㉑ Earth
⑩ Earth	㉒ Earth
⑪ Antenna	㉓ Earth
⑫ Earth	㉔ Earth

■ WAVE FORM

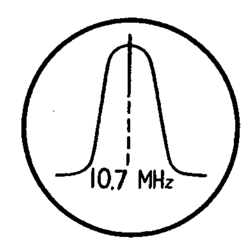


Fig. 16

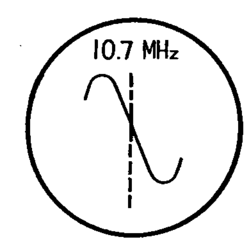


Fig. 17

■ AM RF DUMMY ANTENNA

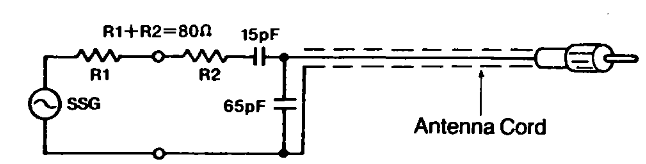


Fig. 18

■ FM RF DUMMY ANTENNA

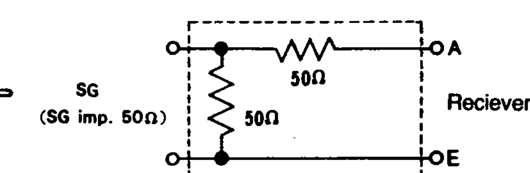


Fig. 19

MEASUREMENTS AND ADJUSTMENTS

1. Set power switch to ON.
2. Mute switch to OFF.
3. Intcom switch to HS.
4. Set volume control to maximum.
5. Set band switch to AM, FM.
6. Set SENS switch to DX.

AM IF ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		FREQUENCY DISPLAY SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
	CONNCTIONS	FREQUENCY				
AM-IF ALIGNMENT						
AM	▼9.......(+) Earth.....(−)	450 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/ about 600 kHz)	▼11...(+) ▼E...(−)	T302 (AM 1st IFT) T303 (AM 2nd IFT)	Adjust for maximum output.

AM RF ALIGNMENT

	BAND	AM SIGNAL GENERATOR		FREQUENCY DISPLAY SETTING	DC VOLT METER	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
(1)	AM	Disconnect	No signal applied	520 kHz	▼7...(+) ▼E...(−)	L303 (AM OSC Coil)	Adjust for 1.2±0.05 V readig on DC voltmeter
(2)	AM	Disconnect	No signal applied	1610 kHz	▼7...(+) ▼E...(−)	CT302 (AM OSC Trimmer)	Adjust for 7.8±0.1 V reading on DC voltmeter
(3)	AM	Repeat steps (1) and (2).					

	BAND	AM SIGNAL GENERATOR		FREQUENCY DISPLAY SETTING	AC VOLT METER	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
(4)	AM	Connect to antenna socket through AM RF dummy antenna. (Refer to Fig. 18)	550 kHz	550 kHz	▼11...(+) ▼E...(−)	L301 (AM ANT Coil) L304 (AM ANT Coil)	Adjust for maximum reading on AC voltmeter
(5)	AM	〃	1500 kHz	1500 kHz	▼11...(+) ▼E...(−)	CT301 (AM ANT Trimmer) CT303 (AM ANT Trimmer)	〃
(6)	AM	Repeat steps (4) and (5).					

AM NB ALIGNMENT

BAND	AM SIGNAL GENERATOR		FREQUENCY DISPLAY SETTING	OSCILLO SCOPE	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
AM	Connect to antenna socket through AM RF dummy antenna. (Refer to Fig. 18)	550 kHz (400 Hz, 0% Mod. 74 dB)	550 kHz	▼10.....(+) ▼E.....(−)	T301 (AM NB)	Adjust for maximum wave from on oscilloscope.

FM ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		FREQUENCY DISPLAY SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
	CONNCTIONS	FREQUENCY				
FM-IF ALIGNMENT						
FM	High side thru. 0.001µF to test point ▼1, Negative side to test point ▼E.	10.7 MHz SWP.	Point of non-interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point ▼4. Negative side to test point ▼E.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to Fig. 16)
FM	〃	〃	〃	〃	T3 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to Fig. 17)

■ FM RF ALIGNMENT

	BAND	FM SIGNAL GENERATOR		FREQUENCY DISPLAY SETTING	DC VOLTMETER	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
(1)	FM	Disconnect	No signal applied	87.5 MHz	▼7...(+) ▼E...(−)	L5 (FM OSC Coil)	Adjust for 1.2±0.05 V readig on DC voltmeter.
(2)	FM	Disconnect	No signal applied	108 MHz	▼7...(+) ▼E...(−)	CT3 (FM OSC Trimmer)	Adjust for 8±0.1 V reading on DC voltmeter.
(3)	FM	Repeat steps (1) and (2).					

	BAND	FM SIGNAL GENERATOR		FREQUENCY DISPLAY SETTING	AC VOLTMETER	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
(4)	FM	Antenna socket (FM RF Dummy Fig. 19)	89 MHz (400 Hz 30%)	89 MHz	▼11...(+) ▼E...(−)	L1 (FM ANT Coil) L4 (FM ANT Coil)	Adjust for maximum reading on AC voltmeter
(5)	FM	〃	107 MHz (400 Hz 30%)	107 MHz	▼11...(+) ▼E...(−)	CT1 (FM ANT Trimmer) CT2 (FM ANT Timmer)	〃
(6)	FM	Repeat steps 4 and 5.					

■ DC BALANCE NB ALIGNMENT

BAND	FM SIGNAL GENERATOR		FREQUENCY DISPLAY SETTING	DC VOLTMETER (center "0")	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
FM	Antenna scoket	89 MHz (400 Hz, 30% Mod, 60 dB)	89 MHz	▼2.....(+) ▼3.....(−)	T3 (FM IFT)	Adjust T3 for −0.05~0.05 V reading on DC voltmeter.

■ FM STEREO ALIGNMENT

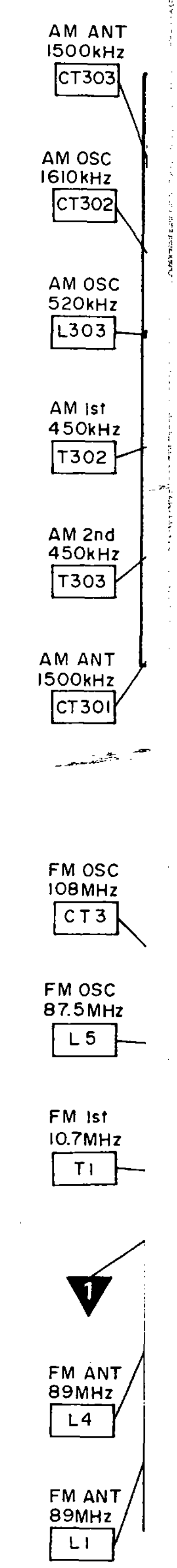
Notes: 1. Stereo modulator................ ●Connect stereo modulator output to EXT MOD terminal of signal generator.
●Pilot signal modulation to "10%".
2. FM signal generator .... ●Frequency approximately 100 MHz/Output level to "60~70 dB", 1~3 mV.
●Modulation mode to "FM".

CIRCUIT	SIGNAL GENRATOR	FREQUENCY COUNTER	AC VOLTMETER	ADJUSTMENT	REMARKS
PILOT	89 MHz (0% Mod, 80 dB)	High side thru, 100 kΩ to test point ▼6. Negative side to ▼E.	———	VR2 (Pilot)	Adjust for 76.00 kHz±50 Hz readign on frequency counter.
SEPARATION	89 MHz (400 Hz, 30% Mod, 80 dB)	———	▼13...Lch (+) ▼12...Rch (+) ▼E...(−)	VR1 (Separation)	Make adjustment so that when the antenna input is subjected to **L** modulation (or **R** modulation.) **R** channel output (or **L** channel output) becomes minimum.

■ AZIMUTH ALIGNMENT

TAPE	AC VOLTMETER①	AC VOLTMETER②	ADJUSTMENT	REMARKS
Playback the azimuth tape.	Across headset	Across headset	▼13...Lch (+) ▼12...Rch (+) ▼E...(−)	Adjust for same reading on AC voltmeter① and ②.

■ ALIGNMENT POINT



aximum
MARKS
.2±0.05 V
C voltmeter
.8±0.1 V
DC voltmeter
MARKS
aximum
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MARKS
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aximum
ig. 16)
aximum
ig. 17)

■ FM RF ALIGNMENT

	BAND	FM SIGNAL GENERATOR CONNECTIONS	FM SIGNAL GENERATOR FREQUENCY	FREQUENCY DISPLAY SETTING	DC VOLTMETER	ADJUSTMENT	REMARKS
(1)	FM	Disconnect	No signal applied	87.5 MHz	▼7...(+) ▼E...(−)	L5 (FM OSC Coil)	Adjust for 1.2±0.05 V readig on DC voltmeter.
(2)	FM	Disconnect	No signal applied	108 MHz	▼7...(+) ▼E...(−)	CT3 (FM OSC Trimmer)	Adjust for 8±0.1 V reading on DC voltmeter.
(3)	FM	Repeat steps (1) and (2).					

	BAND	FM SIGNAL GENERATOR CONNECTIONS	FM SIGNAL GENERATOR FREQUENCY	FREQUENCY DISPLAY SETTING	AC VOLTMETER	ADJUSTMENT	REMARKS
(4)	FM	Antenna socket (FM RF Dummy Fig. 19)	89 MHz (400 Hz 30%)	89 MHz	▼11...(+) ▼E...(−)	L1 (FM ANT Coil) L4 (FM ANT Coil)	Adjust for maximum reading on AC voltmeter
(5)	FM	"	107 MHz (400 Hz 30%)	107 MHz	▼11...(+) ▼E...(−)	CT1 (FM ANT Trimmer) CT2 (FM ANT Timmer)	"
(6)	FM	Repeat steps 4 and 5.					

■ DC BALANCE NB ALIGNMENT

BAND	FM SIGNAL GENERATOR CONNECTIONS	FM SIGNAL GENERATOR FREQUENCY	FREQUENCY DISPLAY SETTING	DC VOLTMETER (center "0")	ADJUSTMENT	REMARKS
FM	Antenna scoket	89 MHz (400 Hz, 30% Mod, 60 dB)	89 MHz	▼2.....(+) ▼3.....(−)	T3 (FM IFT)	Adjust T3 for −0.05~0.05 V reading on DC voltmeter.

■ FM STEREO ALIGNMENT

Notes: 1. Stereo modulator .... •Connect stereo modulator output to EXT MOD terminal of signal generator.
•Pilot signal modulation to "10%".
2. FM signal generator .... •Frequency approximately 100 MHz/Output level to "60~70 dB", 1~3 mV.
•Modulation mode to "FM".

CIRCUIT	SIGNAL GENRATOR	FREQUENCY COUNTER	AC VOLTMETER	ADJUSTMENT	REMARKS
PILOT	89 MHz (0% Mod, 80 dB)	High side thru, 100 kΩ to test point ▼6. Negative side to ▼E.	——	VR2 (Pilot)	Adjust for 76.00 kHz±50 Hz readign on frequency counter.
SEPARATION	89 MHz (400 Hz, 30% Mod, 80 dB)	——	▼13...Lch (+) ▼12...Rch (+) ▼E...(−)	VR1 (Separation)	Make adjustment so that when the antenna input is subjected to **L** modulation (or **R** modulation.) **R** channel output (or **L** channel output) becomes minimum.

■ AZIMUTH ALIGNMENT

TAPE	AC VOLTMETER①	AC VOLTMETER②	ADJUSTMENT	REMARKS
Playback the azimuth tape.	Across headset	Across headset	▼13...Lch (+) ▼12...Rch (+) ▼E...(−)	Adjust for same reading on AC voltmeter① and ②.

■ ALIGNMENT POINT *Please refer to Circuit Board for test points locaton.

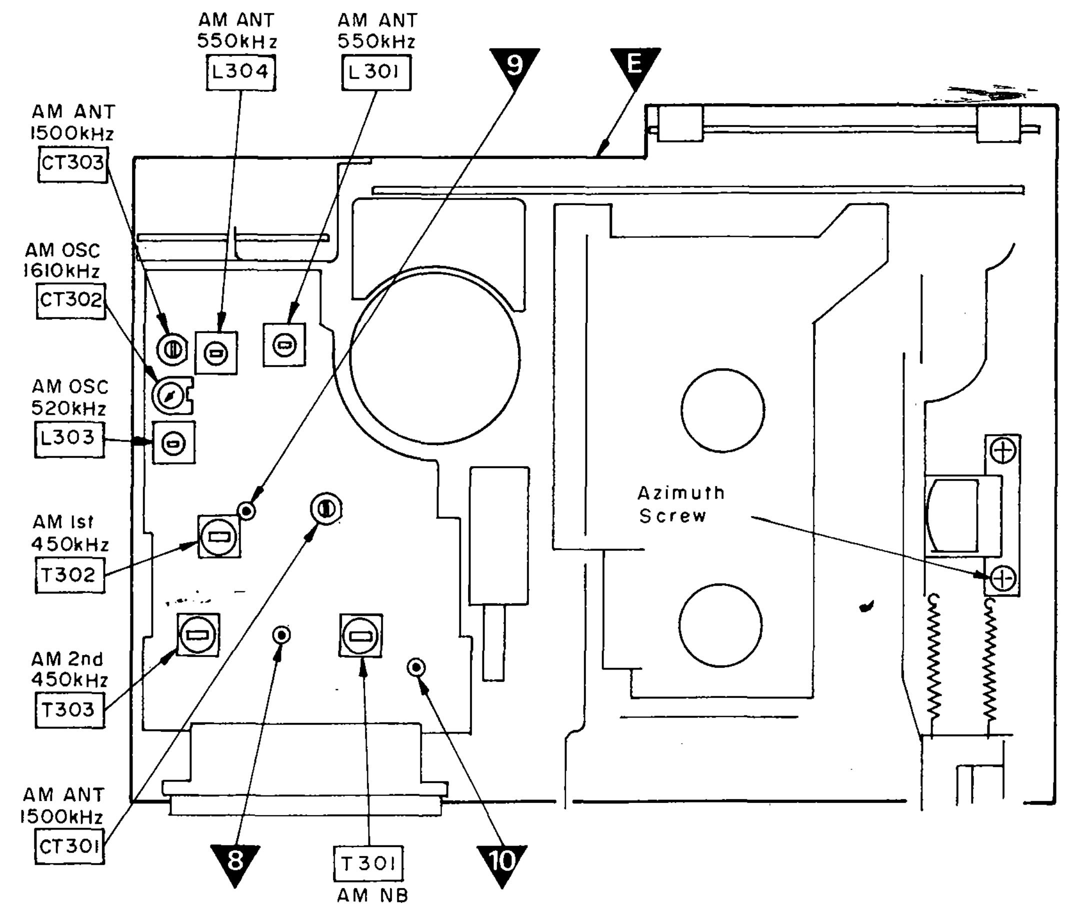


Fig. 20

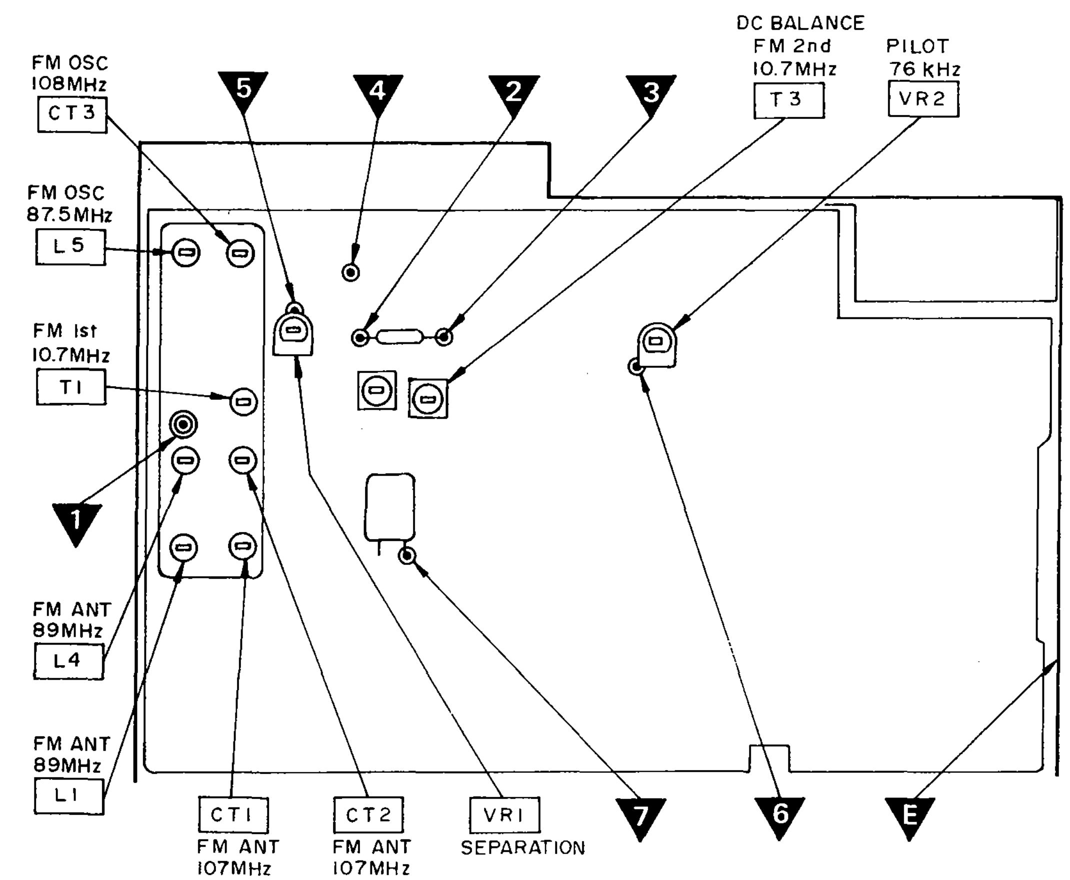


Fig. 21

LIQUID CRYSTAL DISPLAY (LCD)

1) The common and segment terminals of the LCD are connected in the following way:

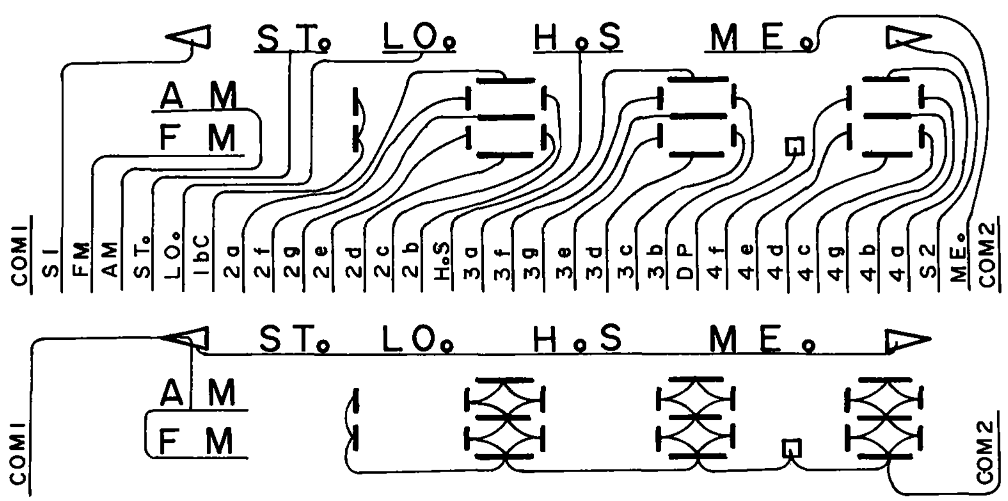


Fig. 22

2) Output signal waveforms of LCD segment

Fig. 22-1 indicates the timing chart of LCD operation.

No.	Phase of segment signal vs. common signal	Segments of LCD
1	Oposite	ON
2	Same	OFF

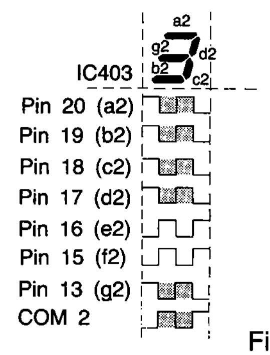


Fig. 22-1

RVITD6301AP (IC403): EACH TERMINAL FUNCTION & WAVEFORM

1) Terminal View

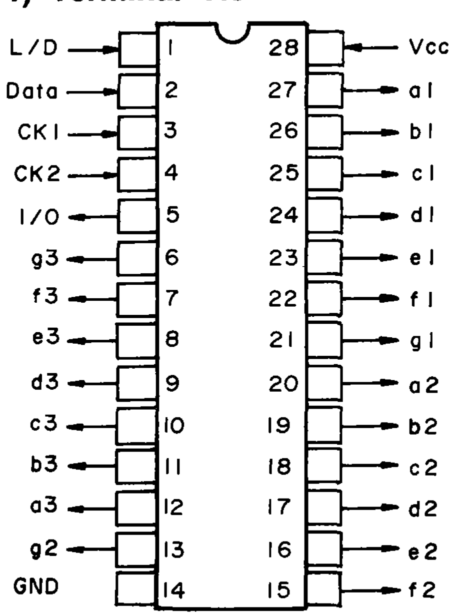


Fig. 23

2) Block Diagram

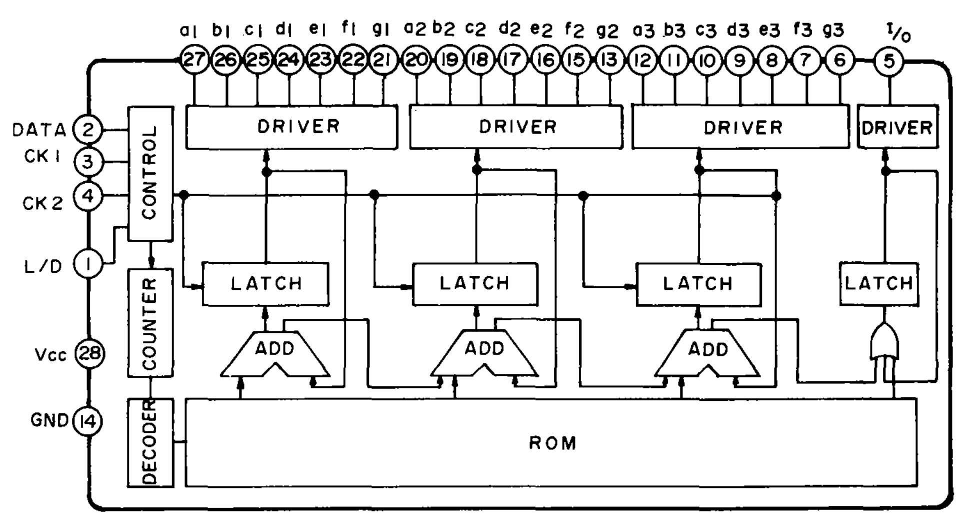
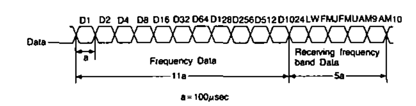
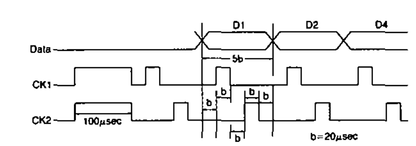


Fig. 24

3) Explanation of each terminal

Pin No.	Symbol	Description
1	L/D	Output condition switching input terminal. This terminal sets the display output mode (LED, FL, or LCD). LED...Make this terminal "H" level. FL ...Make this terminal "L" level. LCD...Apply AC voltage to this terminal.
2	Data	Receiving frequency data input terminal. A data signal containing the receiving frequency and band is sent to this terminal from pin 22 of IC7 (RVITC9137P) each time the receiving frequency is changed.  A data signal is composed of 16 bits. Eleven bits are assigned for frequency data and the remaining 5 bits are assigned for the reception bands.
3, 4	CK1, CK2	Receiving frequency data input control timing input terminal. Each time a data signal is sent, a timing signal is concurrently sent from pins 20 and 21 of IC7 to this terminal, to read the data signal. Two lines (CK-1 and CK-2) are used for timing the data signal reading. They have the following timing relationship with the data signal. 
5	I/O	Segment drive output terminal. This output terminal enables display of the digit corresponding to units of 100 MHz in the FM mode and the digit corresponding to units of 1000 kH in the AM mode.
6~12	a3~g3	7-segment drive output terminal. This output terminal enables display of the digit corresponding to units of 10 MHz in the FM mode and the digit corresponding to units of 100 kHz in the AM mode.
13.15~20	a2~g2	7-segment drive output terminal. This output terminal enables display of the digit corresponding to units of 1 MHz in the FM mode and the digit corresponding to units of 10 kHz in the AM mode.
14	GND	Ground terminal.
21~27	a1~g1	7-segment drive output terminal. This output terminal for enabling display of the digit corresponding to units of 100 kHz in the FM mode and the digit corresponding to units of 1 kHz in the AM mode.
28	Vss	Power supply terminal (5V).

RVITC9137P (IC7): EACH TERMINAL FUNCTION & WAVEFORM

1) Terminal view

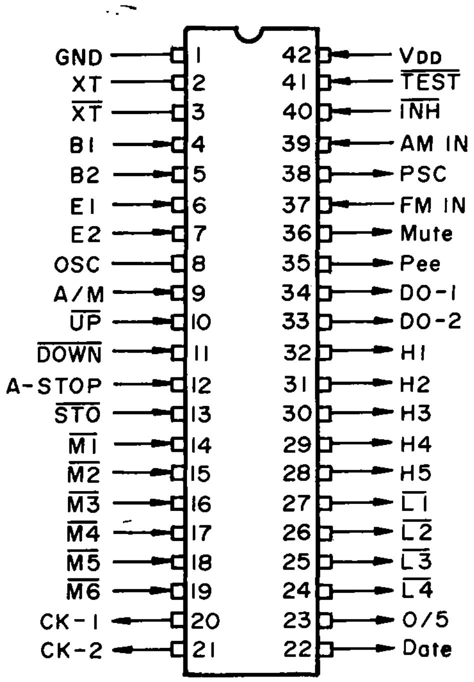


Fig. 25

2) Block Diagram

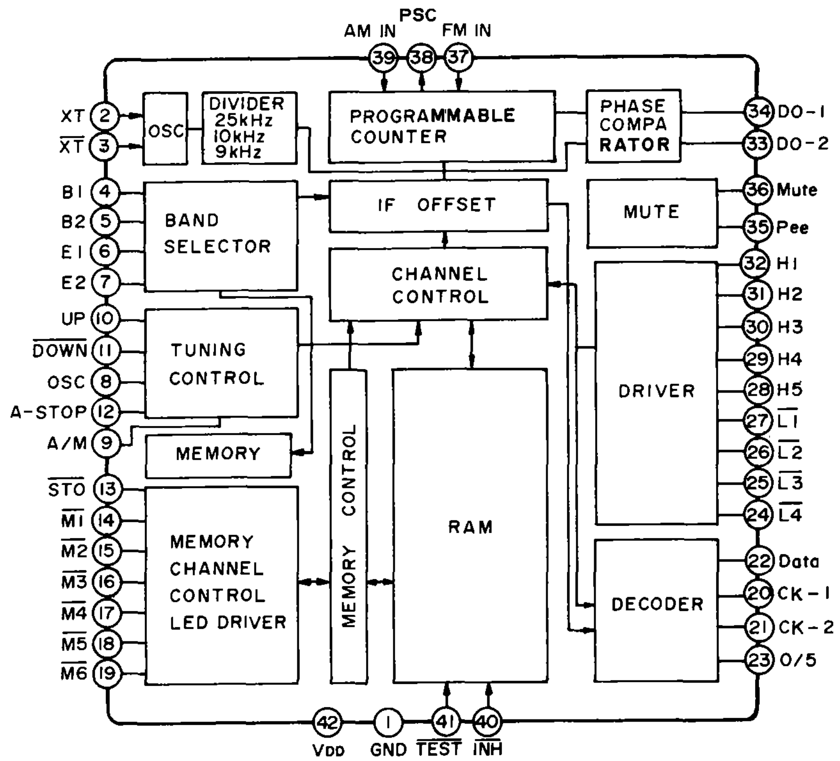
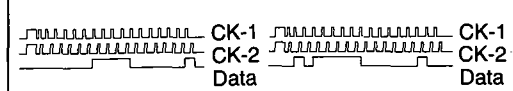
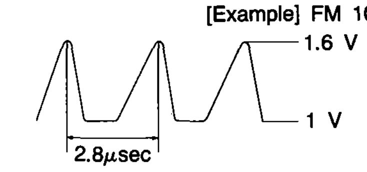
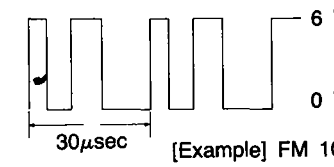
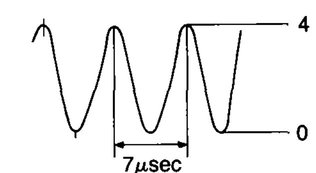


Fig. 26

3) Explanation of each terminal

Pin No.	Symbol	Description
1	GND	Ground terminal.
2, 3	XT, $\overline{XT}$	Used to connect a quartz oscillator (7.2 MHz).
4, 5	B1, B2	Input terminals for FM/AM band switching and IF fine tuning selection. Applying the voltages shown below effects band switching and IF selection. B1 (Pin 4) / B2 (Pin 5): "L" / "L" — AM (450 kHz) "H" / "H" — FM (10.7 MHz) "H" Level: 5 V "L" Level: 0 V
6, 7	E1, E2	Band-mode switching input terminals. Applying the voltages shown below switches the band mode. E1 (Pin 6) / E2 (Pin 7): "L" / "H" — For U.S.A. BAND "H" Level: 5 V "L" Level: 0 V
8	OSC	External CR connection terminal. Externally connected C123 (10 V, 2.2 μF) and R133 (27 kΩ) determine the auto-search scanning speed, automatic reset of the preset memory storage state, and the shifting time of manual tuning to fast scanning.
9	A/M	Auto/manual switching input terminal. Selects manual or auto-search mode in the up/down tuning mode. "L" level......manual mode "H" level......auto-search mode Sustained pressing of the UP/DOWN tuning key for a certain time switches from manual mode to auto-search mode, and moves the A/M terminal from "L" to "H".
10, 11	$\overline{UP}$, $\overline{DOWN}$	Tuning key input terminals. When the voltages shown below are applied to the UP and DOWN terminals, the reception frequency is raised or lowered. UP (Pin 10) / DOWN (Pin 11): "H" / "H" — The reception frequency is locked. "H" / "L" — The reception frequency lowers. "L" / "H" — The reception frequency rises. "H" level: 5 V, "L" level: 0 V
12	A-STOP	Auto-search stop input terminal. When a broadcast is detected during auto-search operation, "H" level signal is applied from Q3 (2SD601, SWITCHING) to the A-STOP terminal to stop the auto-search.
13	$\overline{STO}$	Preset memory storage terminal. Pressing the memory switch (S6) brings pin 13 to "L" to ready the circuitry for storage.
14~17	$\overline{M1}$~$\overline{M4}$	Memory addressing input terminals. When the desired program switch (S7, S8, S9 or S10) is pressed in the memory set ready condition, the corresponding terminal (M1, M2, M3 or M4) goes "L". At this time the reception frequency data is stored. The stored data can be read by simply pressing the corresponding program switch (S7, S8, S9 or S10).
20~22	CK-1 CK-2 Data	Reception frequency data and timing signal output terminals. A cycle of data and signal is serially delivered only when the reception frequency is altered, i.e., when the UP/DOWN key is pressed, the memory is read, or the band is changed. The timing signals for data signal reading are delivered from the CK-1 (pin 20) and CK-2 (pin 21) terminals. The reception frequency data is delivered from the DATA terminal (pin 22).  [Example] AM 1000 kHz [Example] FM 100 MHz
34	DO-1	Phase comparator output terminal. When the phase of the frequency-divided output of the programmable counter lags behind the reference frequency, the output at the phase comparator output terminal goes "L" for the period corresponding to the phase difference. When the counter output leads, the comparator output goes "H" for the period corresponding to the phase difference.
36	Mute	Muting output terminal. The muting output is delivered from the MUTE terminal at the time of key operation and other cases.
37	FM IN	FM programmable counter input terminal. The FM local oscillation signal which is divided into 1/30 or 1/32 by the prescaler (IC6 RVITD6104P) is inputted to this terminal. [Example] FM 100 MHz 
38	PSC	This is the terminal to deliver the frequency dividing ratio change over output signal to the pre-scaler (IC6 RVITD6104P).  [Example] FM 100 MHz
39	AM IN	AM programmable counter input terminal. The AM local oscillation signal is directly applied from pin 8 of IC301 (PVIUPC1215VE) to the AM IN terminal in the AM mode.  [Example] AM 1000 kHz
40	$\overline{INH}$	Inhibit input terminal. When the power is turned on, the voltage rising time at the INH terminal (pin 40) is delayed for a certain time [the time constant of R90 (100 kΩ) and C94 (1μF)]. The band mode selection data is read during this rising time.
42	VDD	A voltage of 5 V$\pm$0.5 V supply to this terminal during device operation.

AUDIO SYSTEM CONNECTION

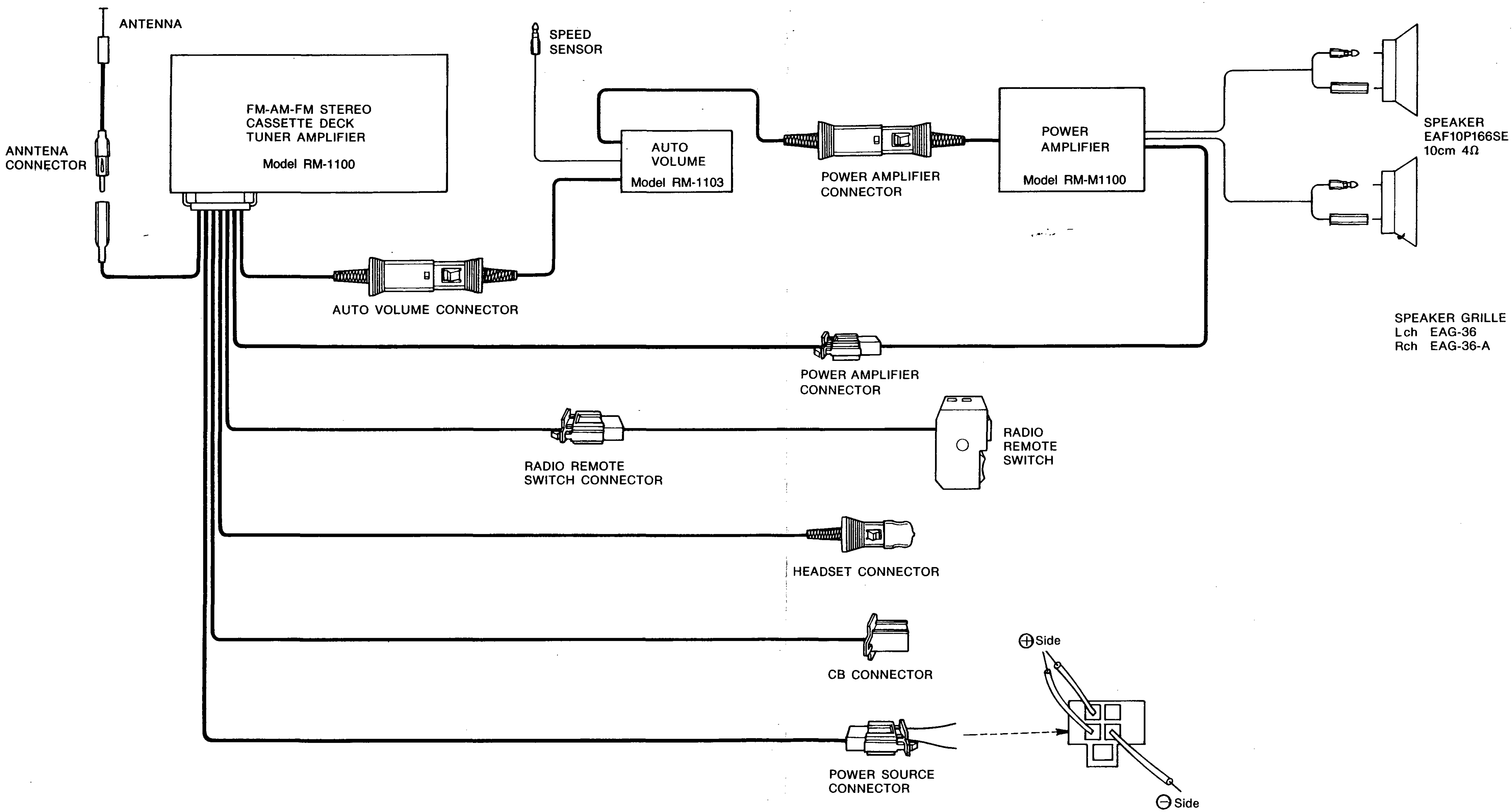


Fig. 27

IO SYSTEM CONNECTION

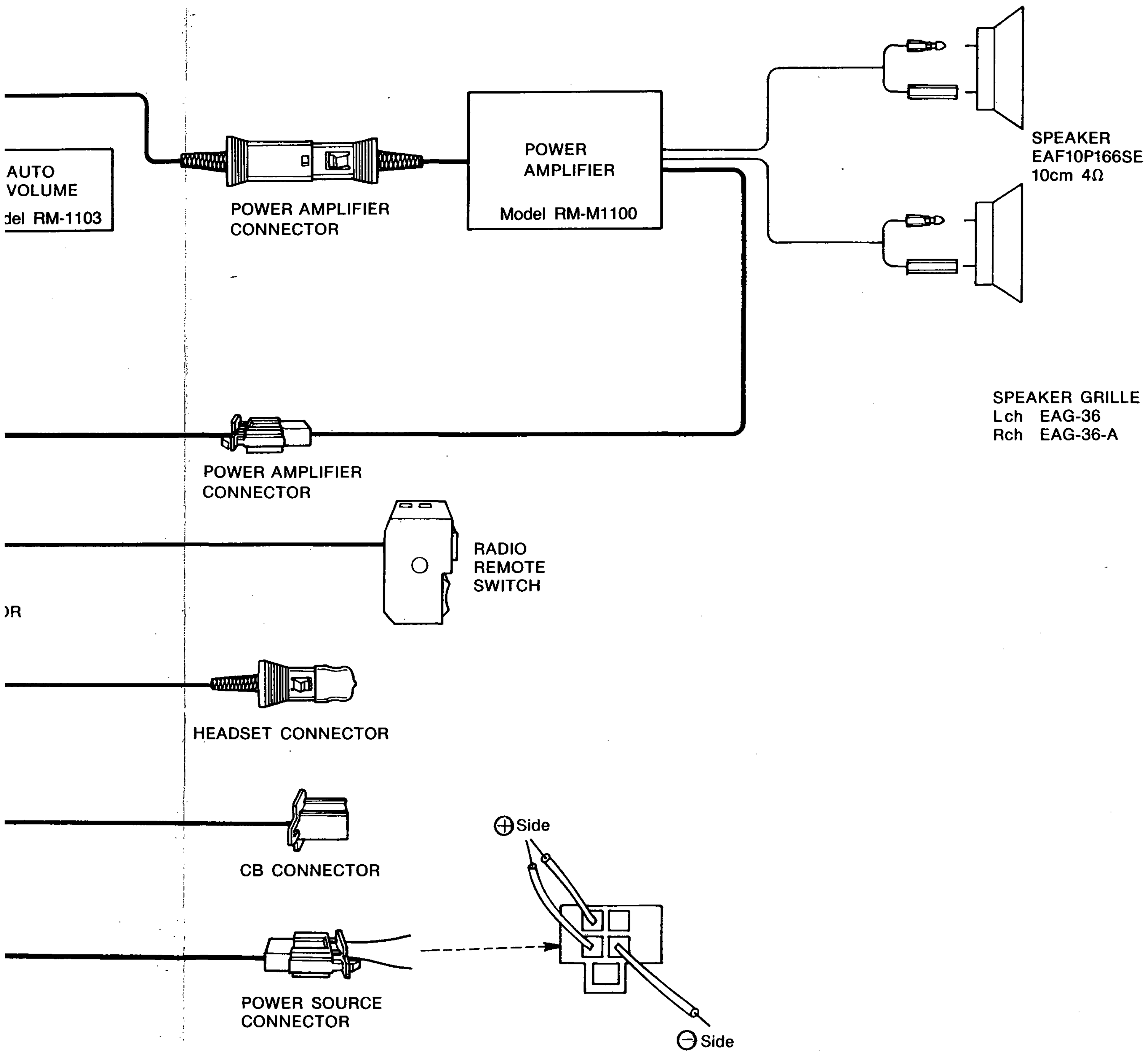
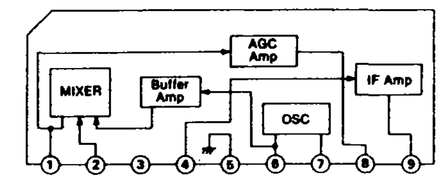


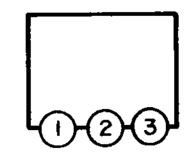
Fig. 27

■ IC BLOK DIAGRAM

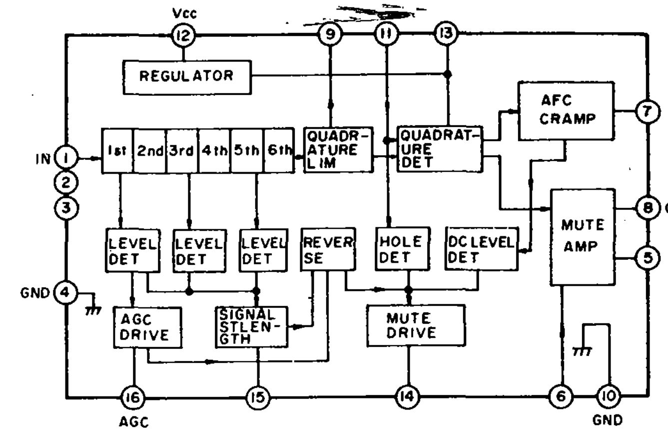
IC1 AN7254



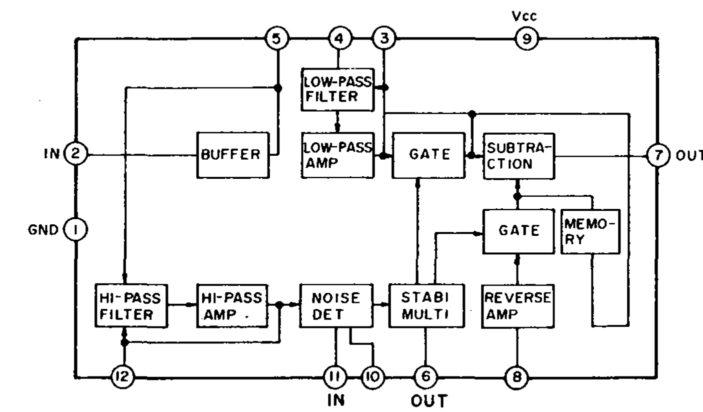
IC2 RVIUPC78L08
IC8 RVITA78L006P
IC9 RVIUPC78L05A



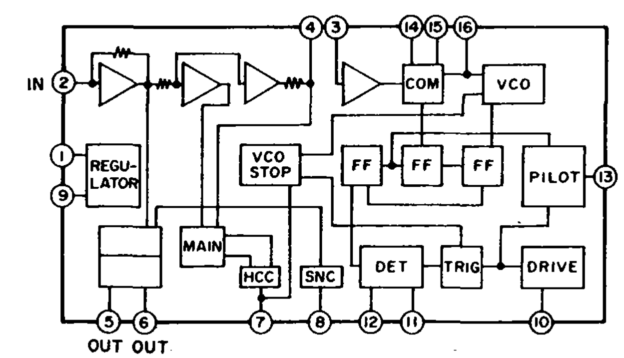
IC3 RVILA1140



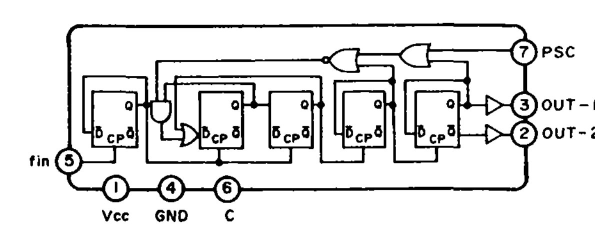
IC4 RVISTK2110D



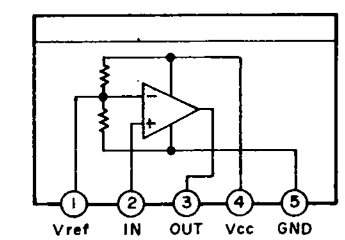
IC5 RVILA3375



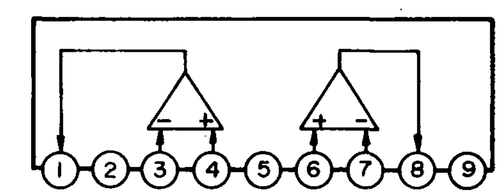
IC6 RVITD6104P



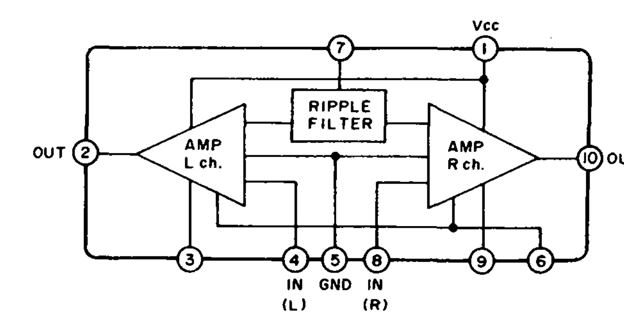
IC10 RVIM51203L



IC11 AN6550



IC12 RVITA7230P

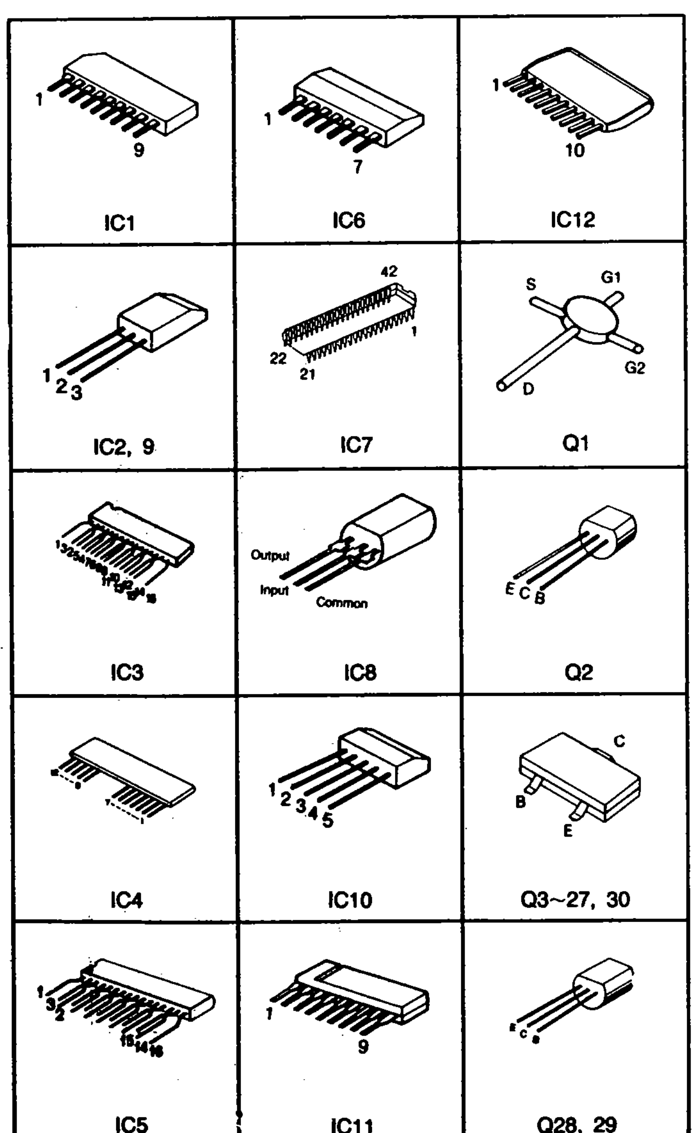


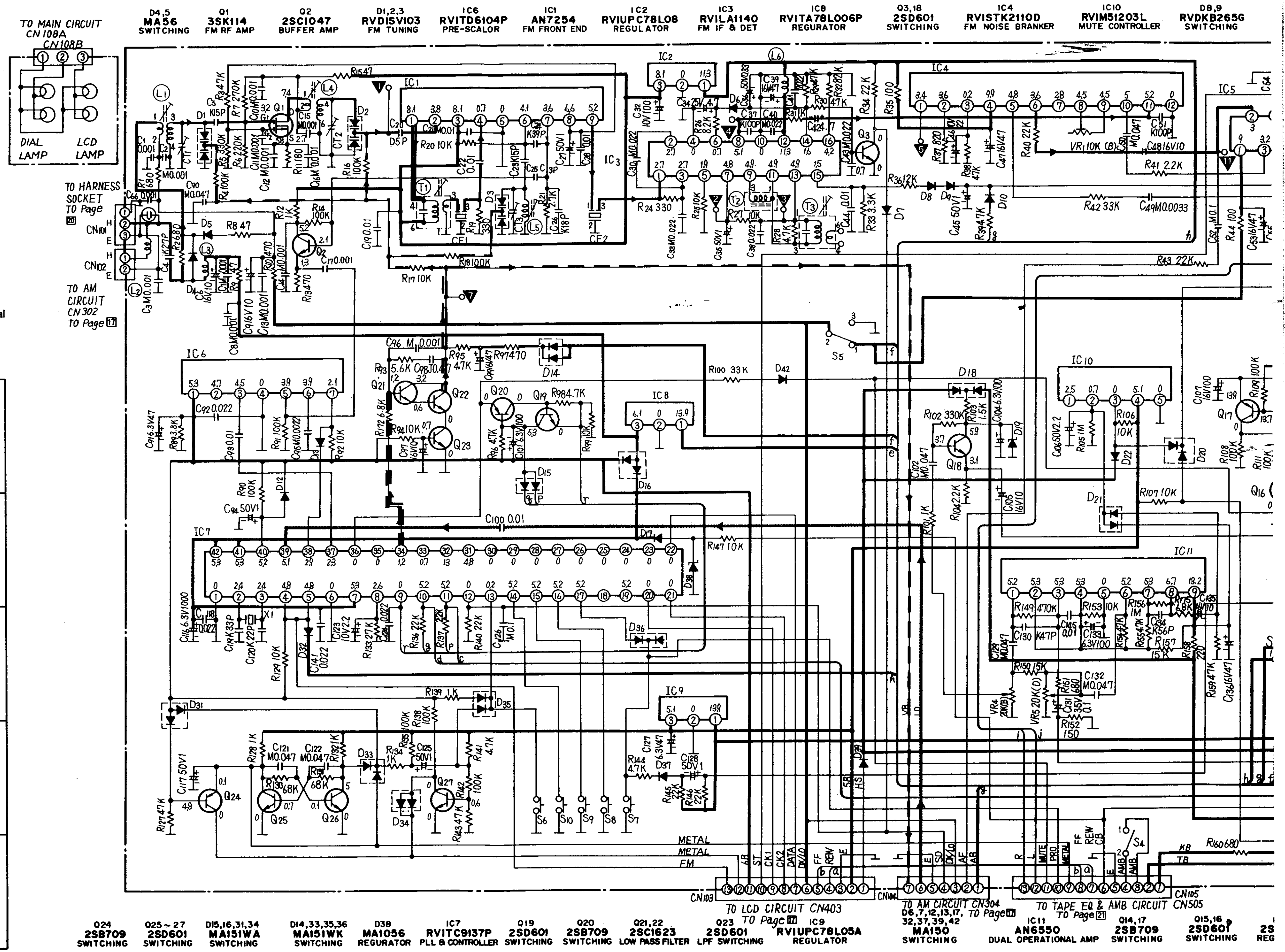
SCHEMATIC DIAGRAM (MAIN) MODE

Notes:

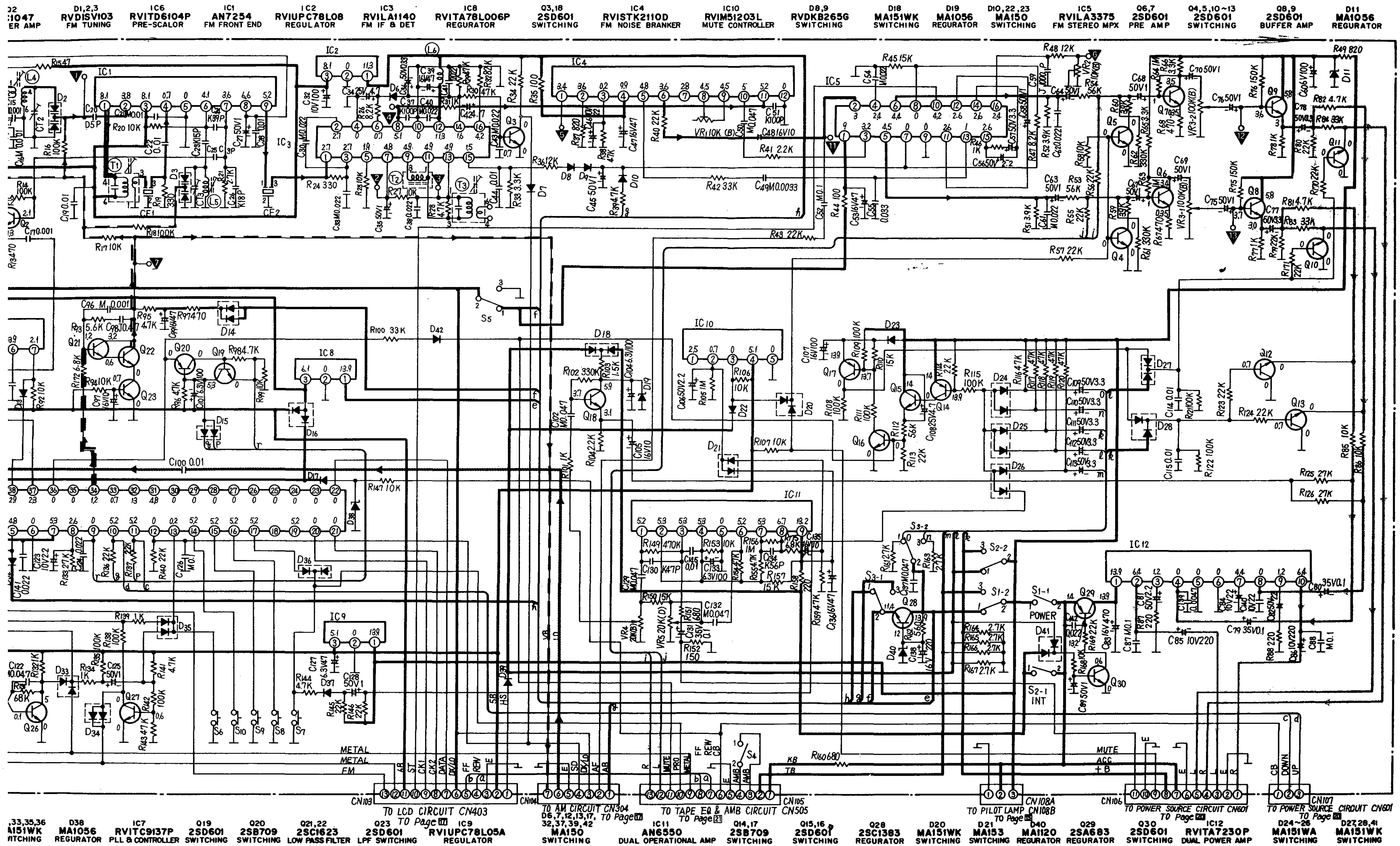
1. S1-1: Power switch in "OFF" position.
2. S1-2: Radio/Tape switch in "RADIO" position. (1...RADIO, 3...TAPE)
3. S2-1: Intercom switch "OFF" position.
4. S2-2: Speaker/Headset switch in "Headset" position. (1...Headset, 3...Speaker)
5. 3-1, 3-2: Band switch in "FM" position. (1...FM, 3...AM)
6. S4: Ambience switch in "OFF" position.
7. S5: Sensitivity switch in "LOCAL" position. (1...LOCAL, 2...DX)
8. S6: Memory/Metal switch.
9. S7: Preset ch1/program switch
10. S8: Preset ch2 switch.
11. S9: Preset ch3 switch.
12. S10: Preset ch4 switch.
13. DC Voltage measurements are taken with electronic voltmeter from negative voltage line.
    - •FM position.
14. VR1: Separation adjustment VR
    - VR2: Pilot VCO adjustment VR
    - VR3: Volume control VR
    - VR4: Intercom control VR
    - VR5: Muting level control VR

- FM Signal
- FM Vcap Control Signal
- FM OSC Signal
- AM Vcap Control Signal
- AM OSC Signal
- Tape & AF Signal
- +Voltage Line

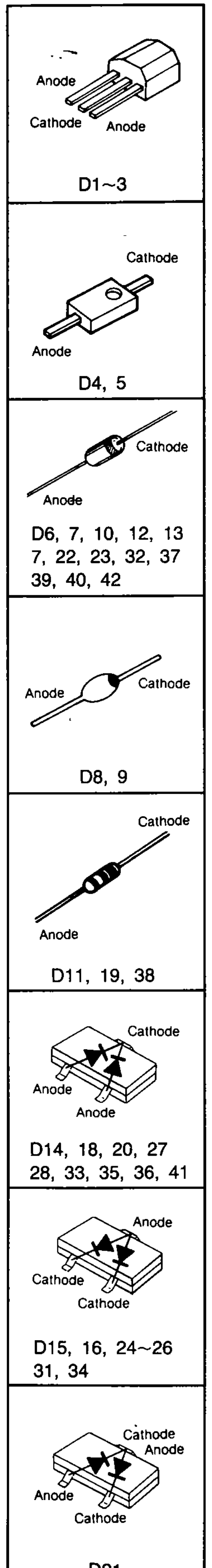


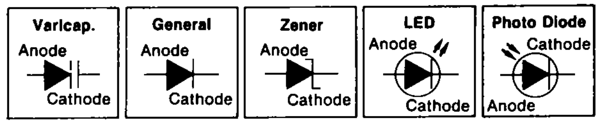


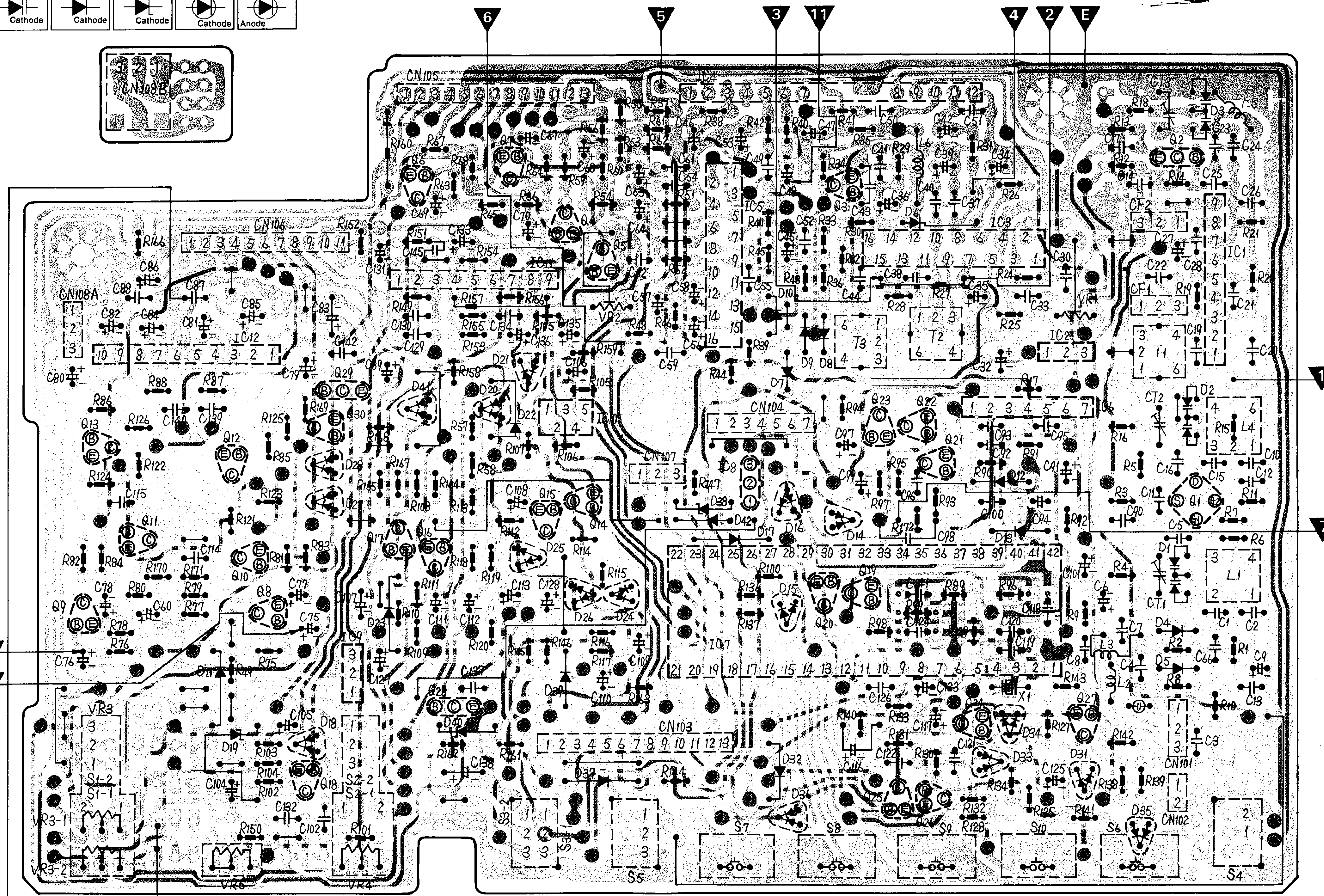
SCHEMATIC DIAGRAM (MAIN) MODEL RM-1100



CIRCUIT BOARD (MAIN) MODEL RM-1100

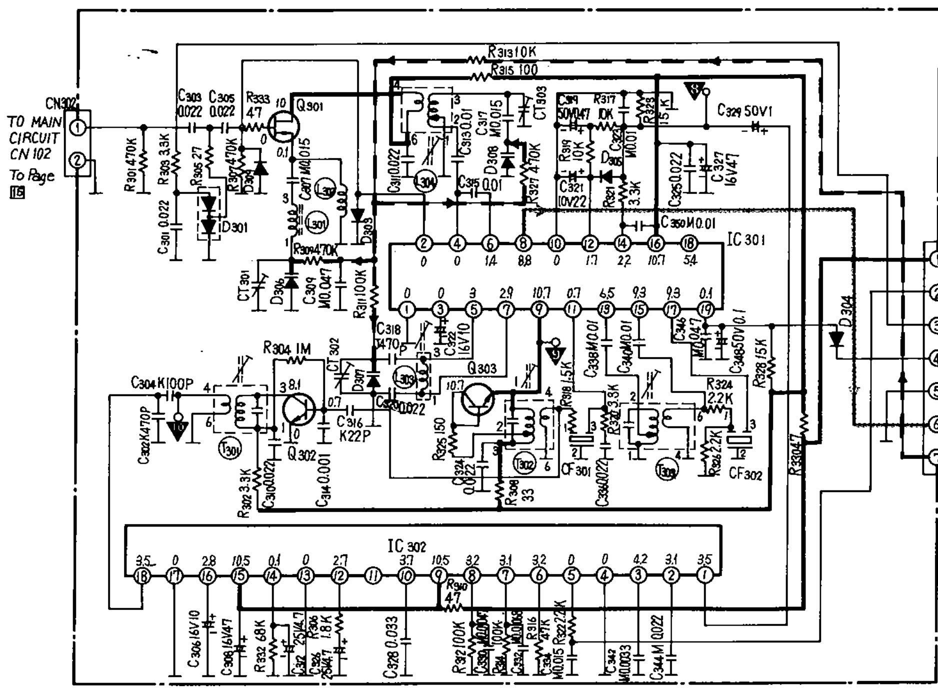


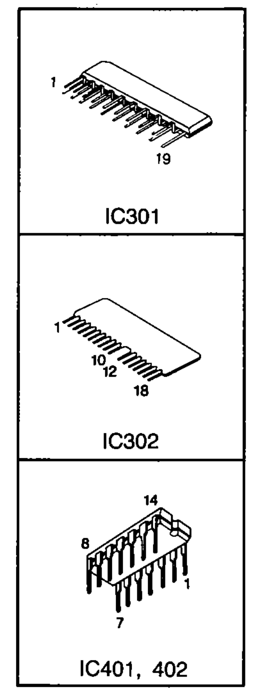




SCHEMATIC DIAGRAM (AM) MODEL RM-1100

D301	D306~308	Q301	Q302	Q303	D303,304,309	IC301	IC302	D305
MA153	RVD1SV149	2SK184	2SC2295	2SC1359B	MA150	RVIUPC1215VE	RVIM57171L	RVDKB265G
SWITCHING	AM TUNING	RF AMP	IF AMP	D AGC	SWITCHING	AM IFAMP&DET	NOISE BLANKER	AGC



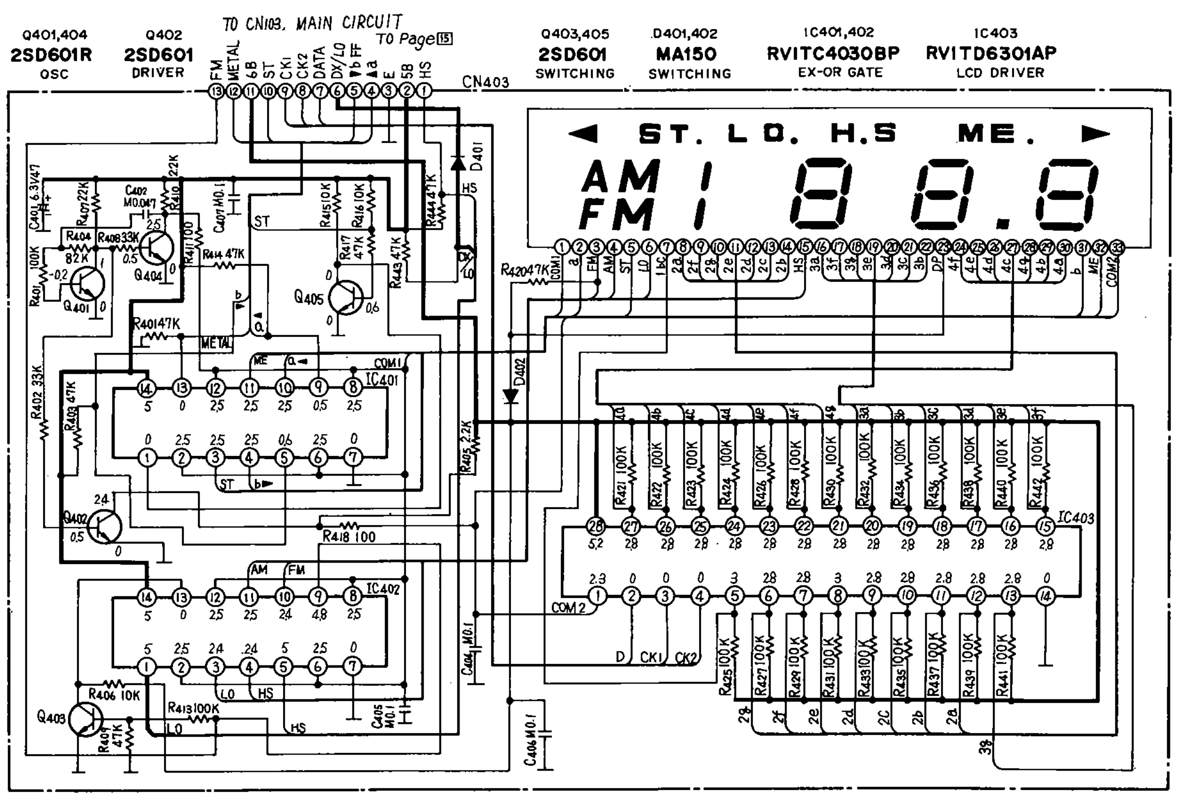


Note:
DC voltage mesurements are taken with electronic voltmeter from negative voltage line.
•AM position

AM OSC Signal Line
AM Vcap Signal Line
+Voltage Line

SCHEMATIC DIAGRAM (LCD) MODEL RM-1100

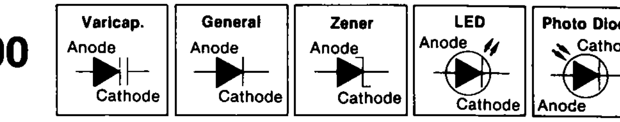
Q401,404	Q402	Q403,405	D401,402	IC401,402	IC403
2SD601R	2SD601	2SD601	MA150	RVITC4030BP	RVITD6301AP
OSC	DRIVER	SWITCHING	SWITCHING	EX-OR GATE	LCD DRIVER

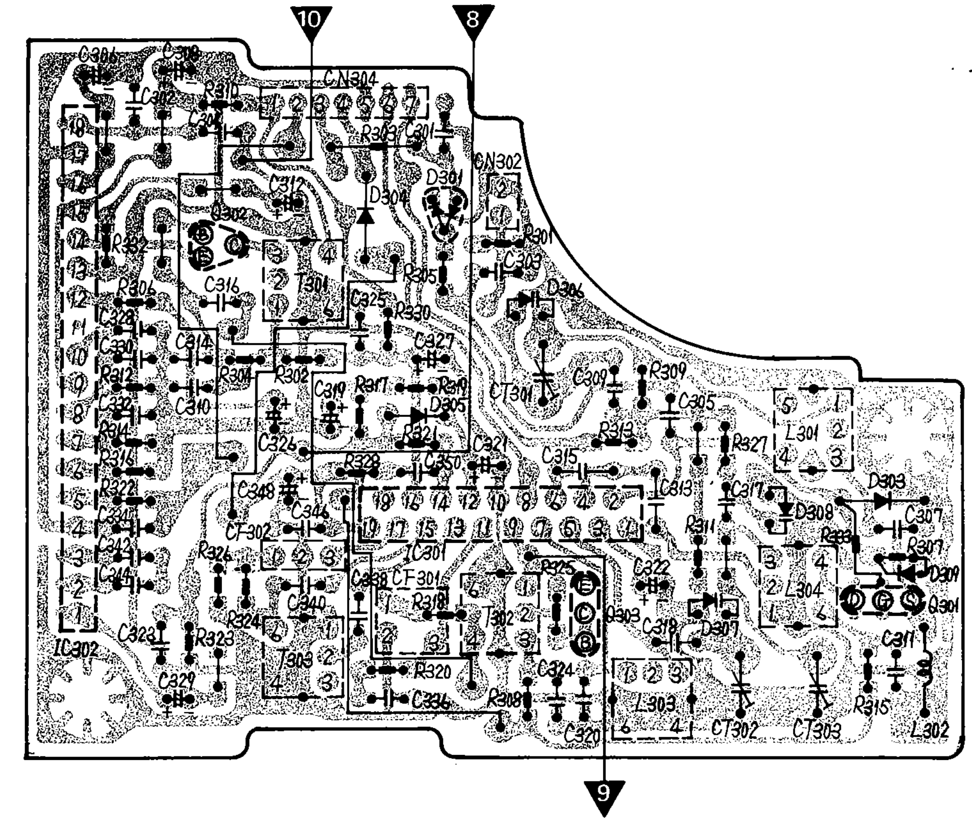


Note:
DC voltage measurments are taken with electronics voltmeter from negative voltage line.
•FM/Local/Headset position

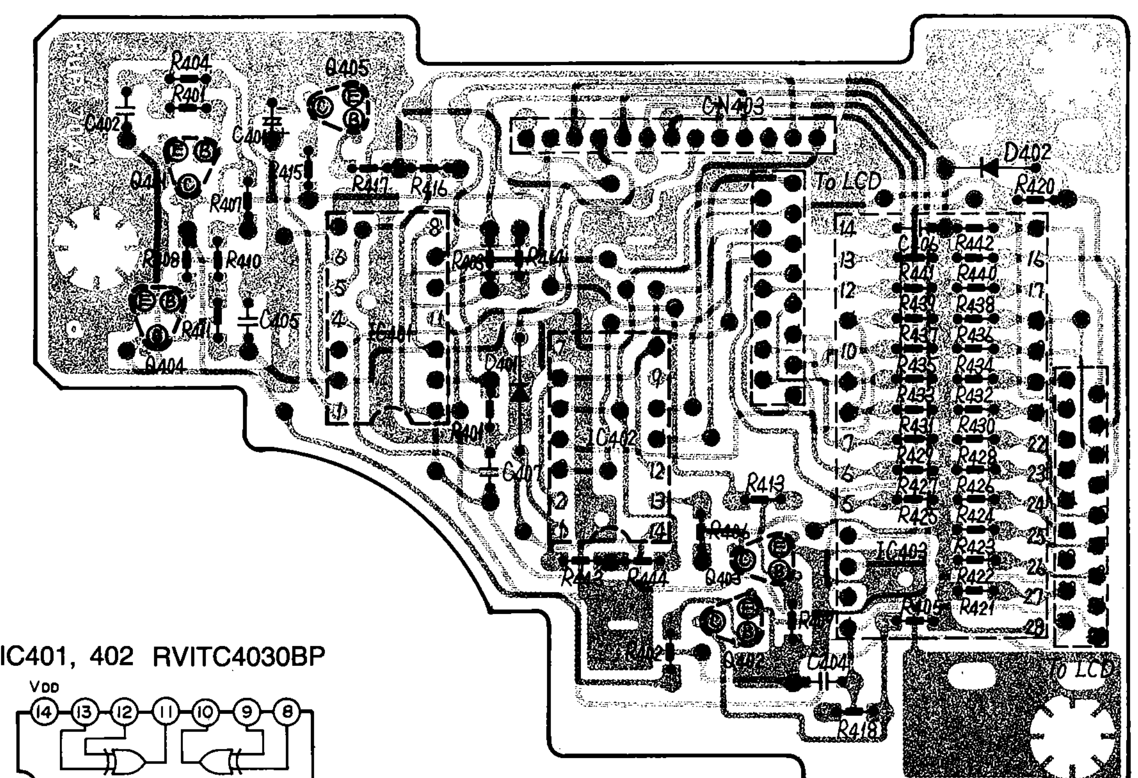
+Voltage Line

CIRCUIT BOARD (AM) MODEL RM-1100

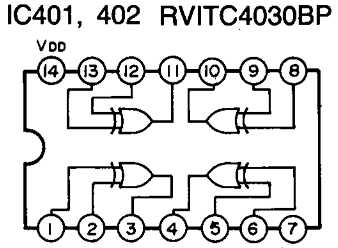


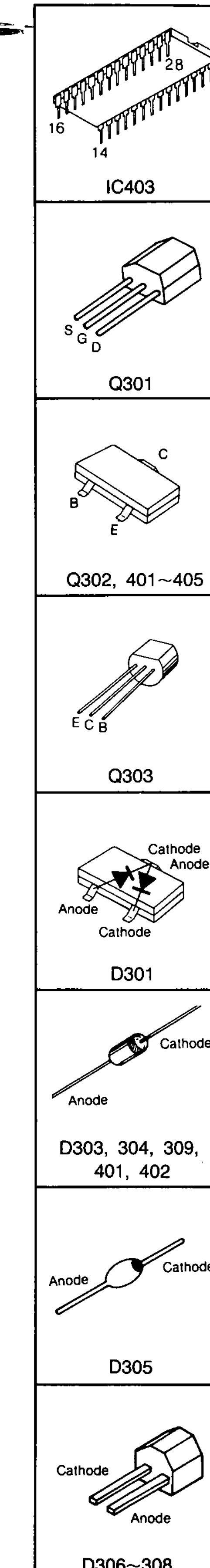


CIRCUIT BOARD (LCD) MODEL RM-1100

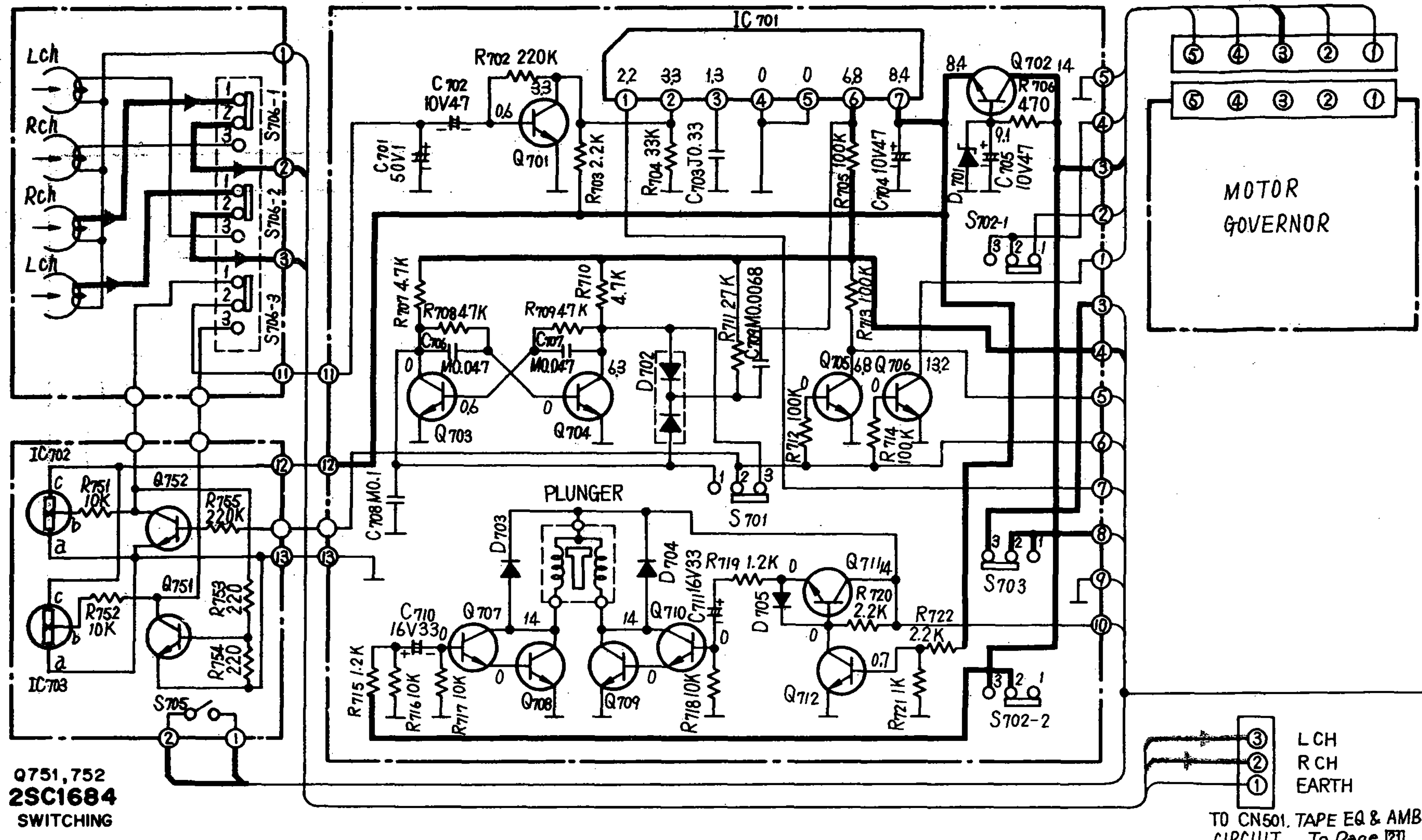


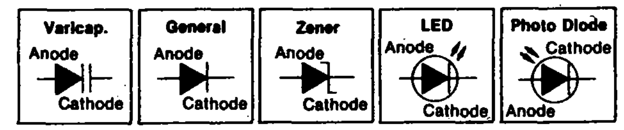
IC401, 402 RVITC4030BP





SCHEMATIC DIAGRAM (TAPE DECK) MODEL RM-1100



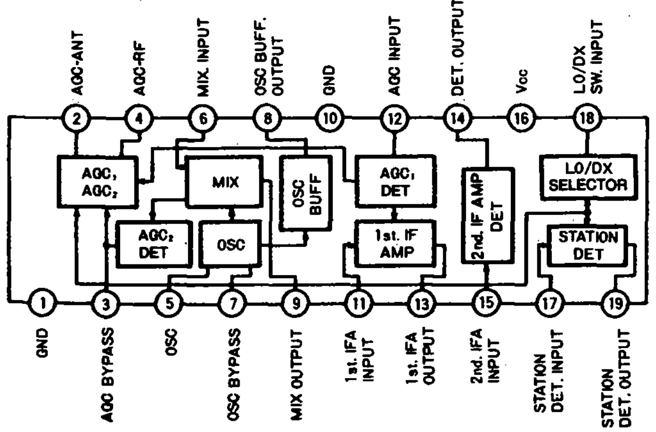


Q751,752	IC702,703	Q701	Q703~707,710~712	Q708,709	D703,704	IC701	D702,705	D701	Q702
2SC1684	DM106	2SD601	2SD601	2SD965	RVD10E1	AN6248	MA151WK	MA1091M	2SC2001
SWITCHING	HOLE ELEMENT	PULSE AMP	SWITCHING	SWITCHING	PROTECTOR	AUTO REVERSE CONTOROL	SWITCHING	REGULATOR	REGULATOR

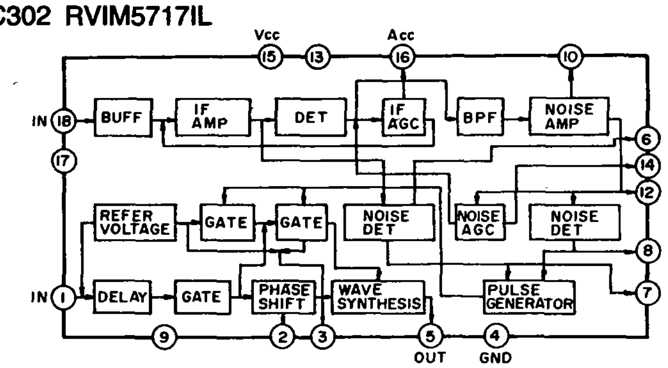
Notes:
1. S701: Forward/Reverse switch in "Forward" position. (1...Reverse, 3...Forward)
2. S702-1, S702-2: Plunger switch in "ON" position. (1...ON, 3...OFF)
3. S703: Tape switch in "ON" position. (1...OFF, 3...ON)
4. S705: Mute switch
5. S706-1, S706-2: Head switch
6. S706-3: Hole element switch.
7. DC voltage measurements are taken with electronic voltmeter from negative voltage line.
   •Tape position

Tape & AF Signal
+Voltage Line

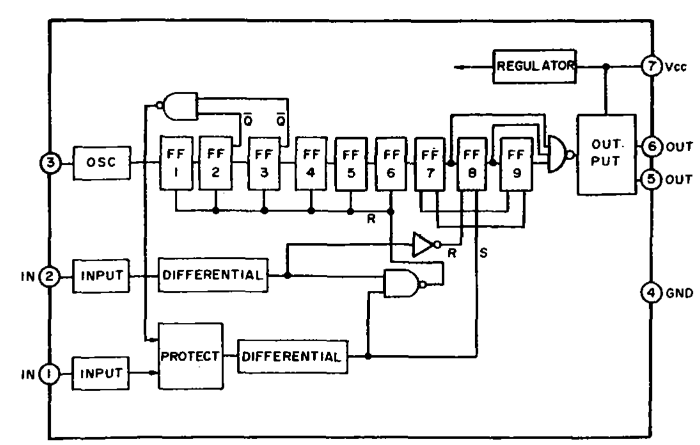
IC301 RVIUPC1215VE



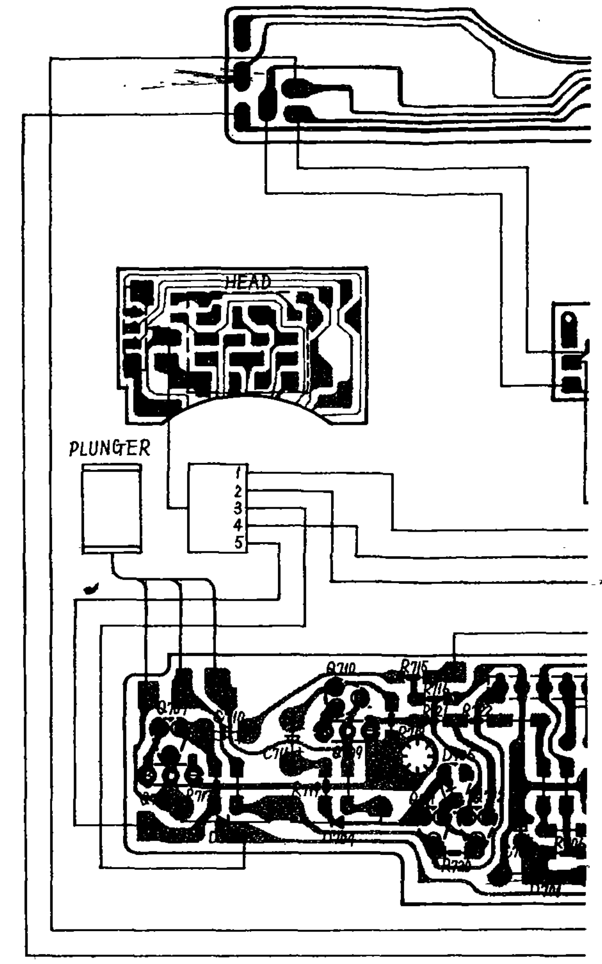
IC302 RVIM5717IL



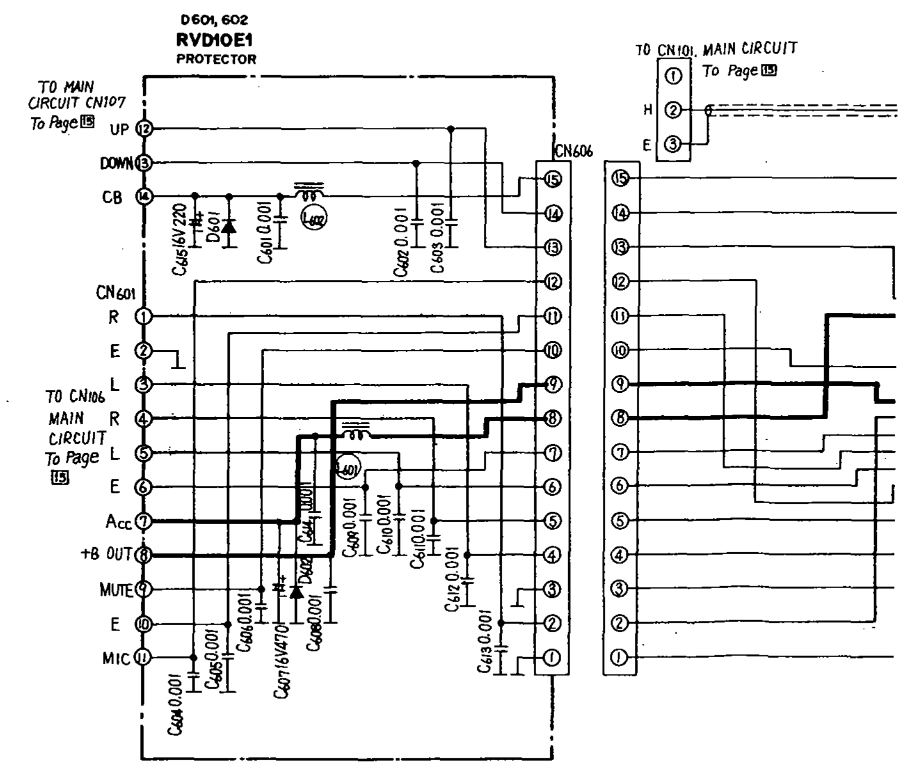
IC701 AN6248



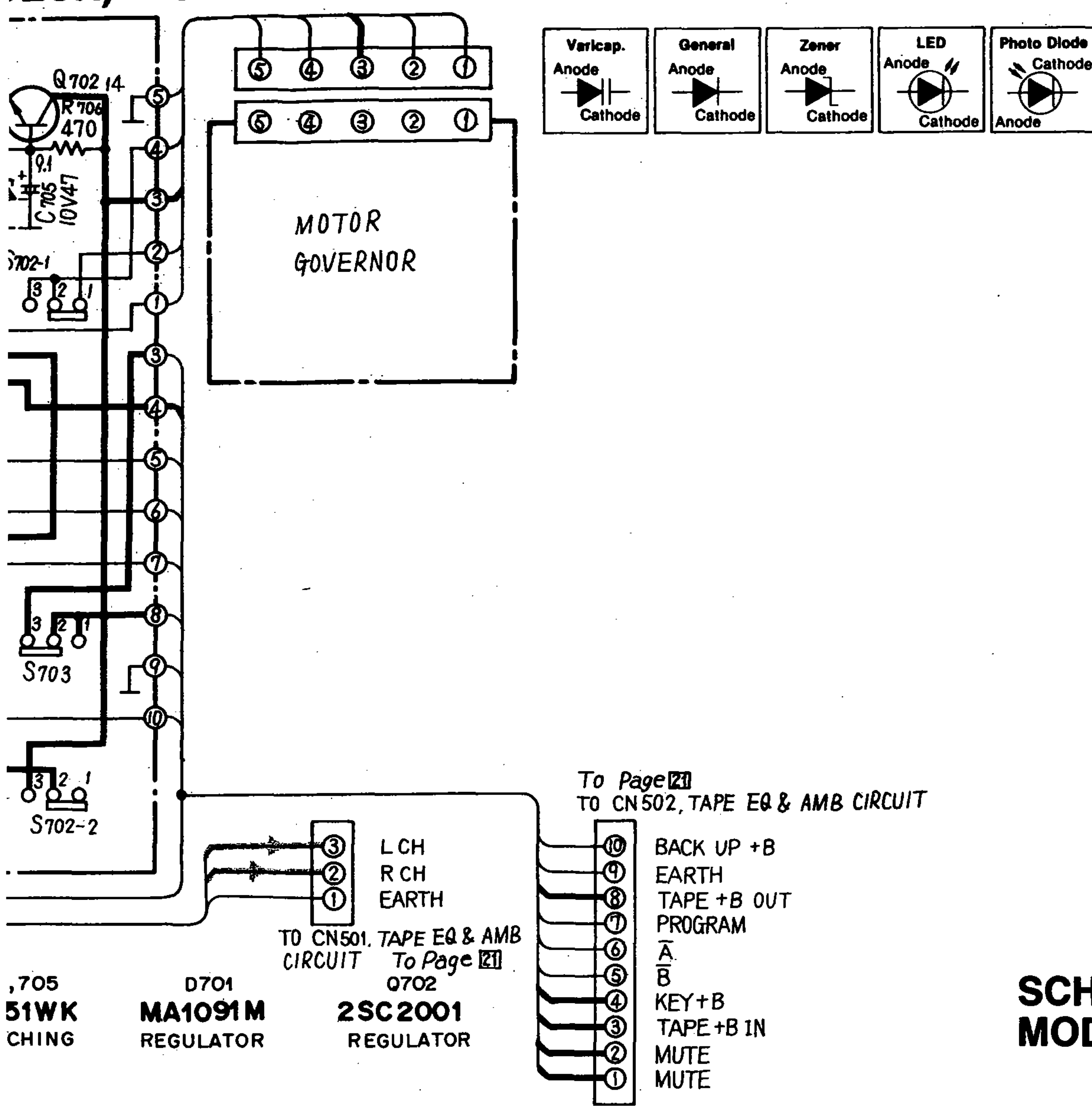
CIRCUIT BOARD



SCHEMATIC DIAGRAM (POWER SOURCI
MODEL RM-1100



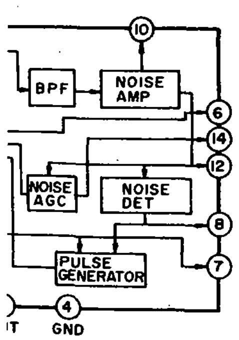
)ECK) MODEL RM-1100



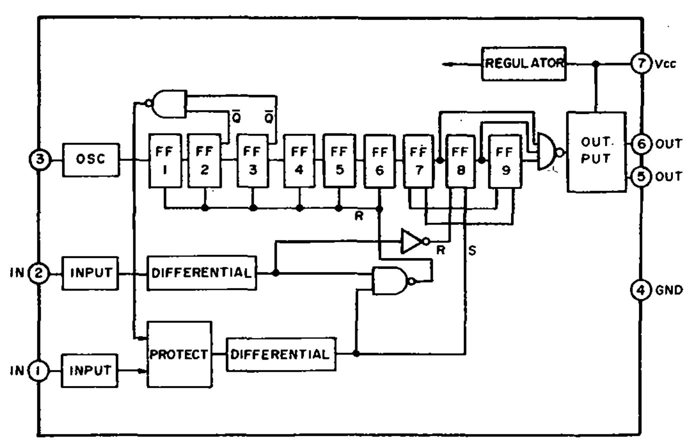
,705	D701	Q702
51WK	MA1091M	2SC2001
CHING	REGULATOR	REGULATOR

ɔctronic voltmeter from

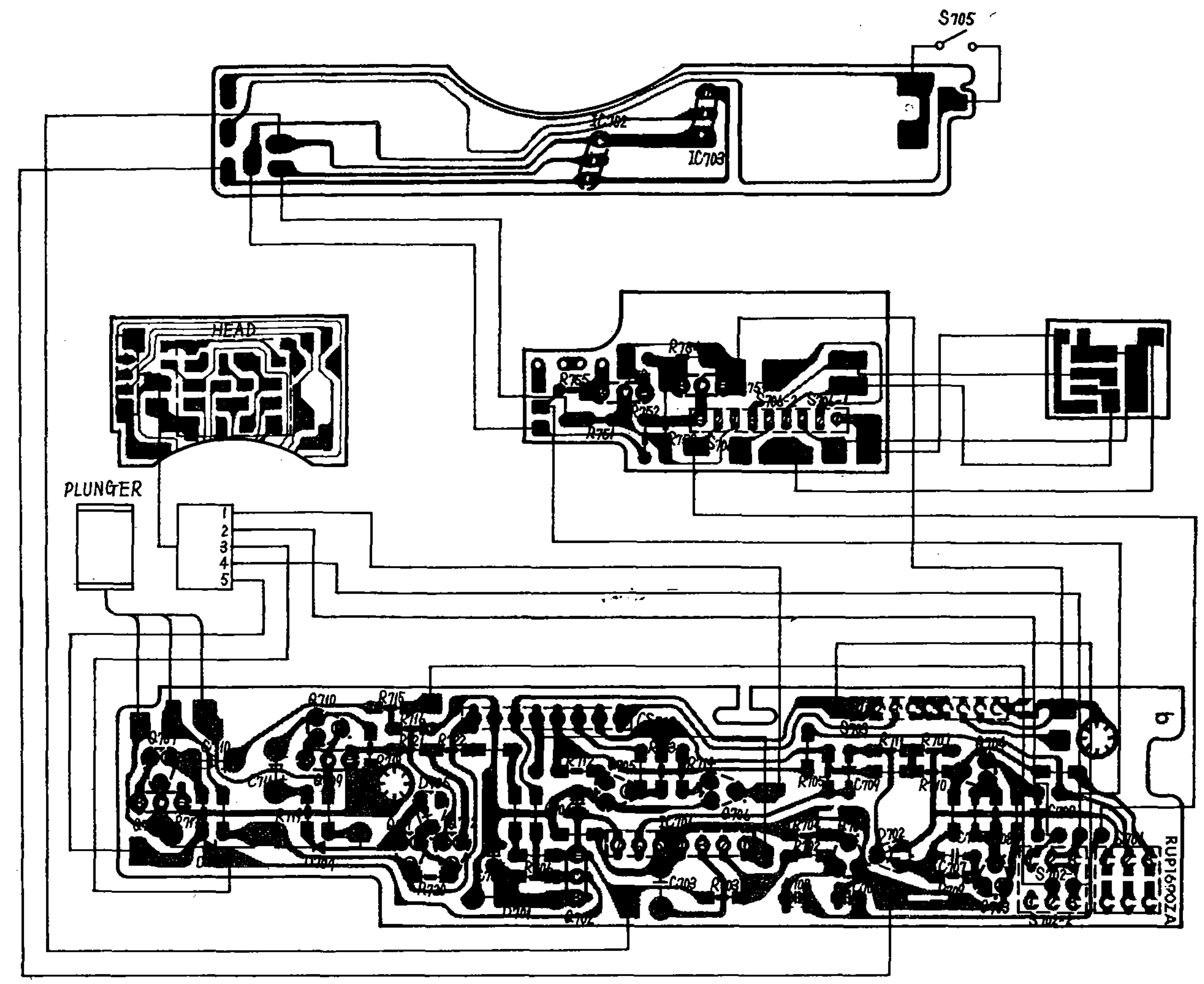
Tape & AF Signal
+Voltage Line

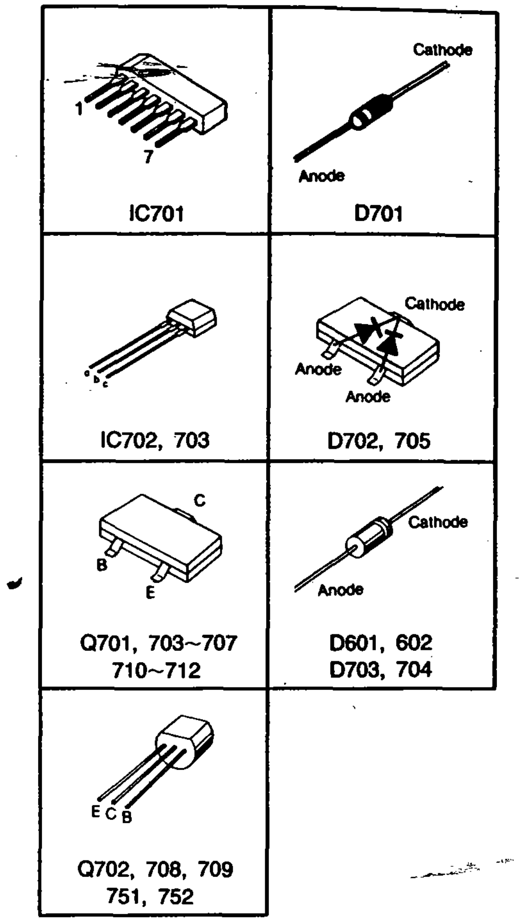


IC701 AN6248

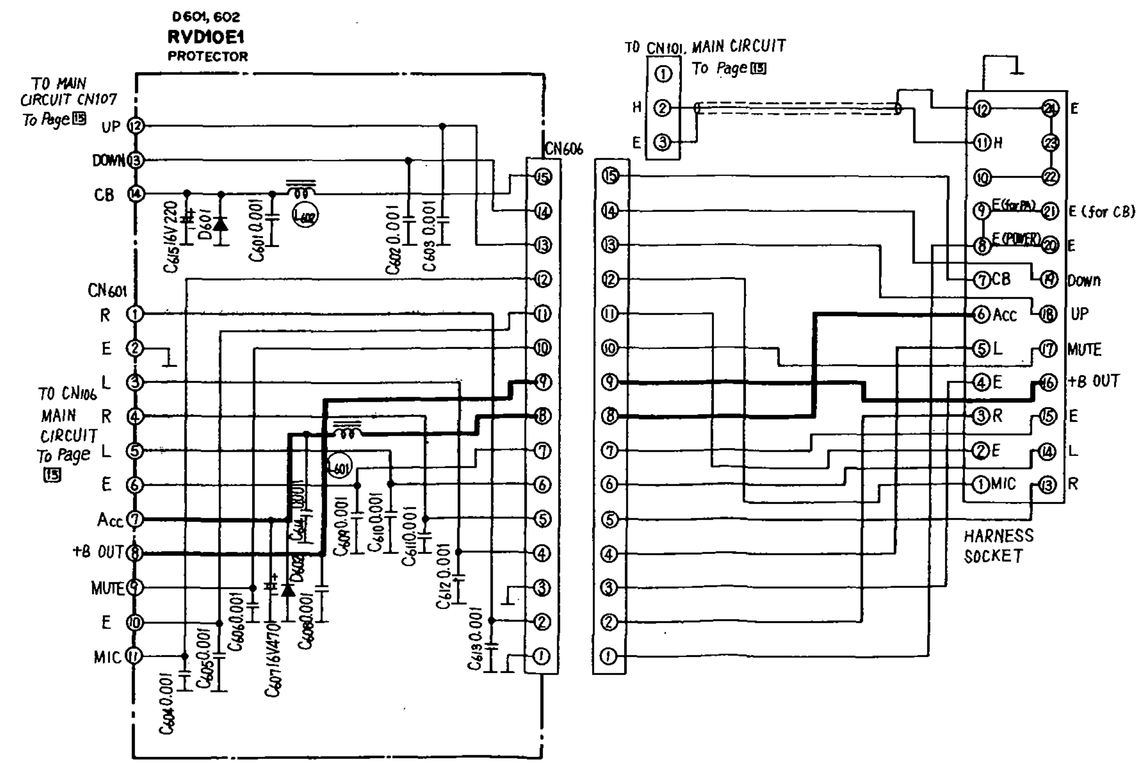


CIRCUIT BOARD (TAPE DECK) MODEL RM-1100

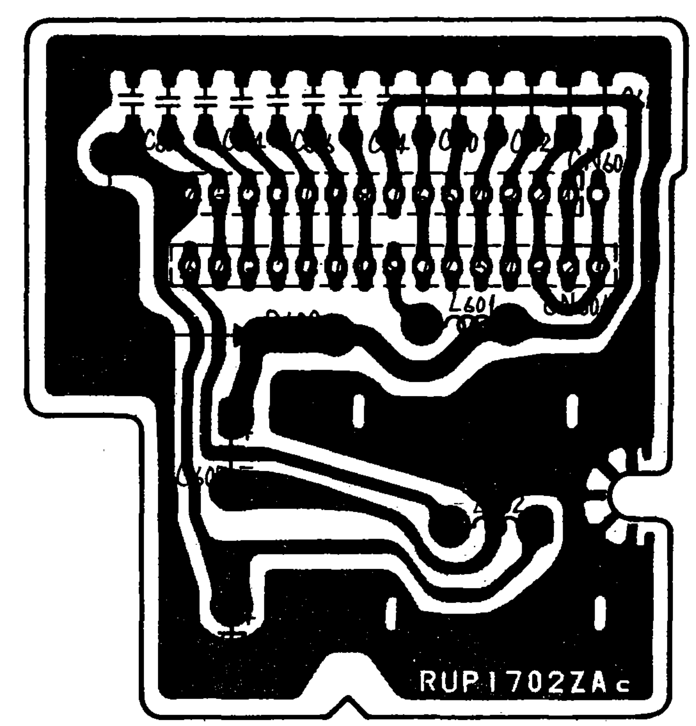




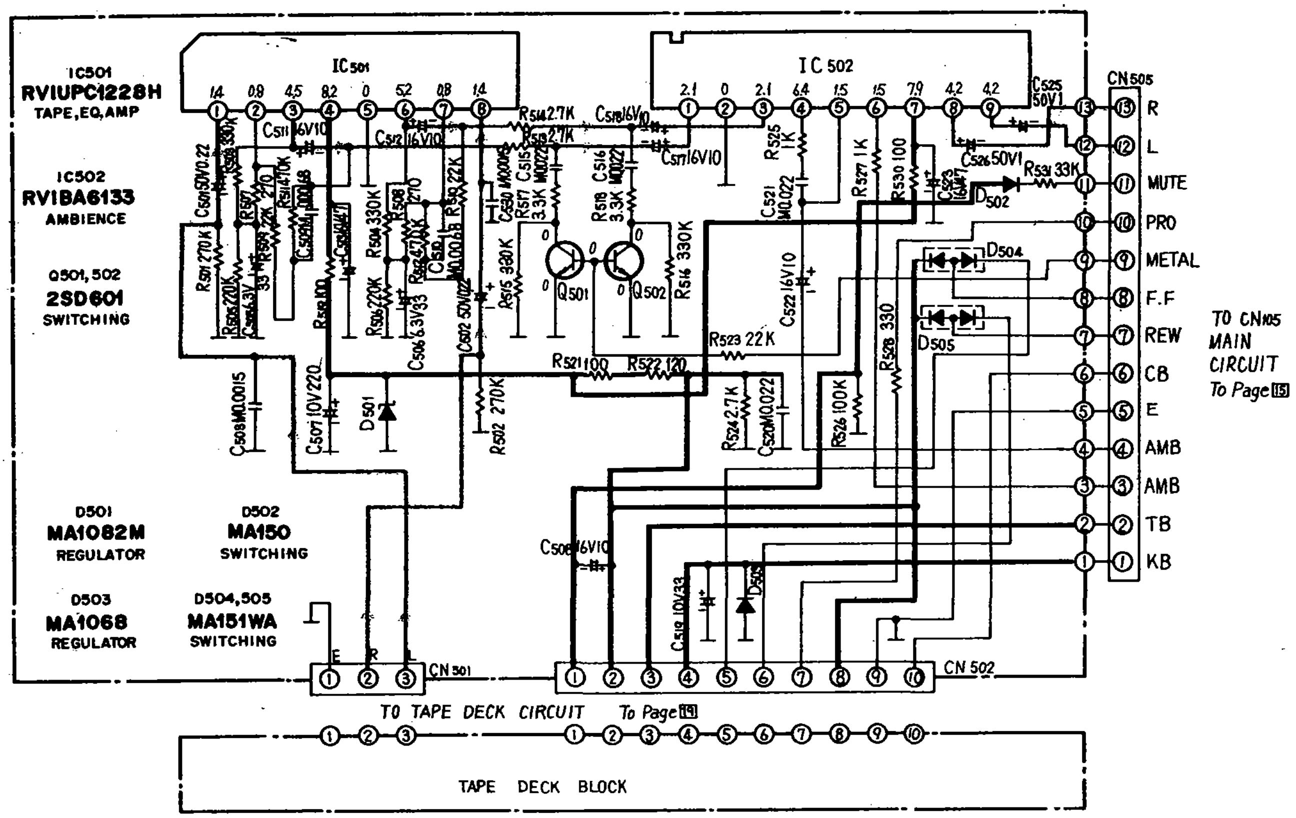
SCHEMATIC DIAGRAM (POWER SOURCE) MODEL RM-1100



CIRCUIT BOARD (POWER SOURCE) MODEL RM-1100



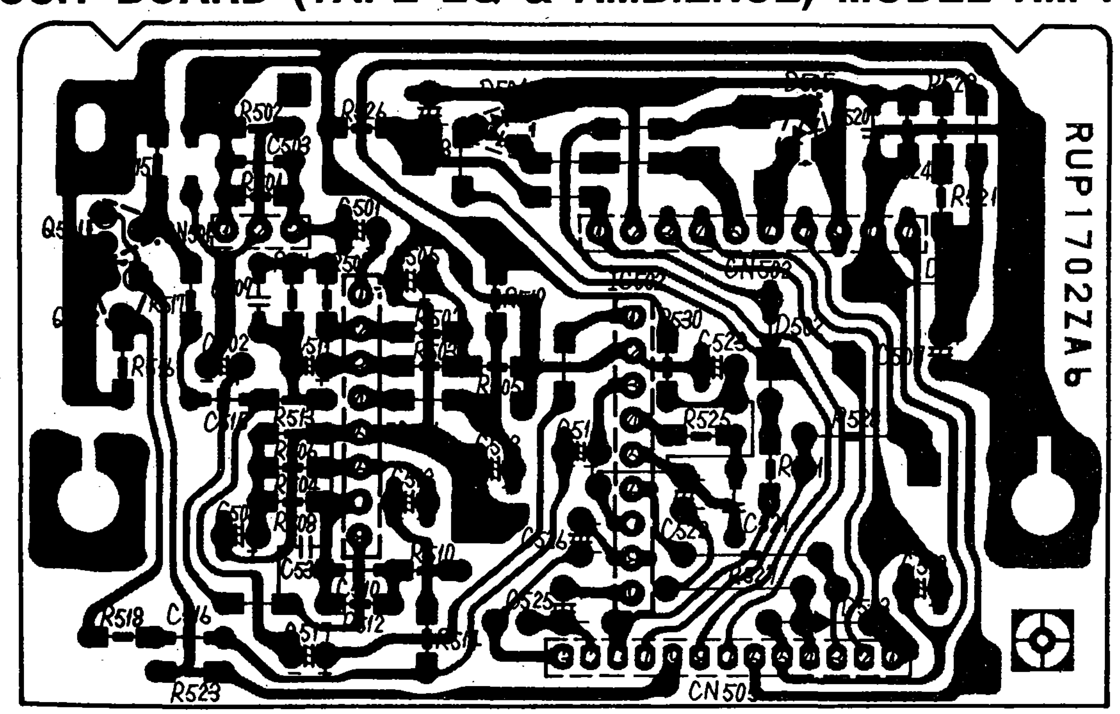
SCHEMATIC DIAGRAM (TAPE EQ & AMBIENCE) MODEL RM-1100



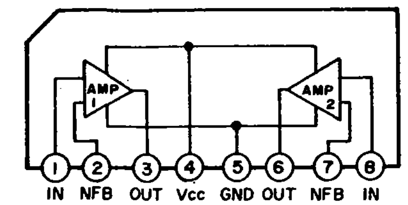
Note:
DC voltage measurements are taken with electronic voltmeter from negative voltage line.
•Tape position

Tape & AF Signal
+Voltage Line

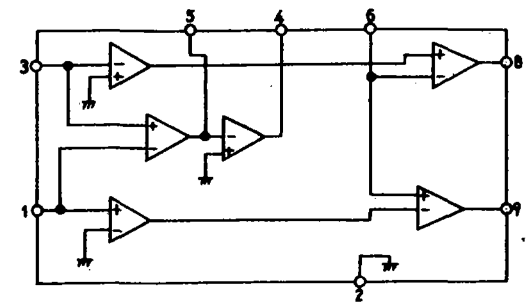
CIRCUIT BOARD (TAPE EQ & AMBIENCE) MODEL RM-1100

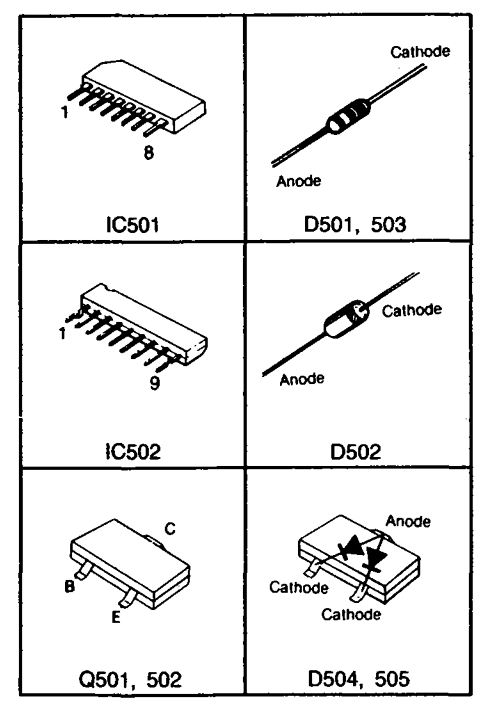


IC501 RVIUPC1228H

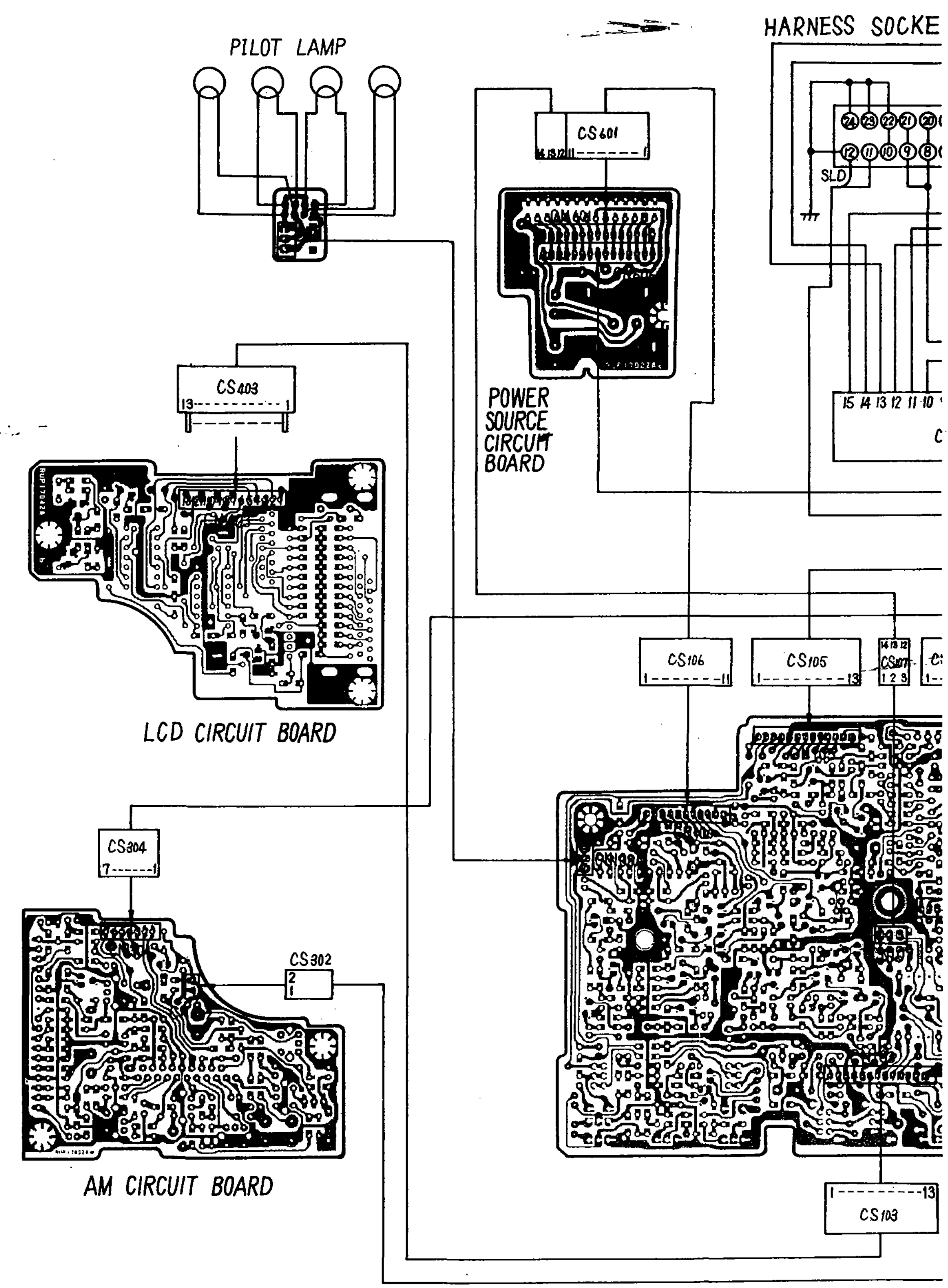


IC502 RVIBA6133



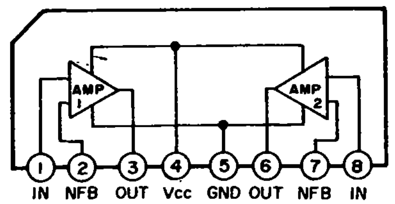


WIRING CONNECTION DIAGR.

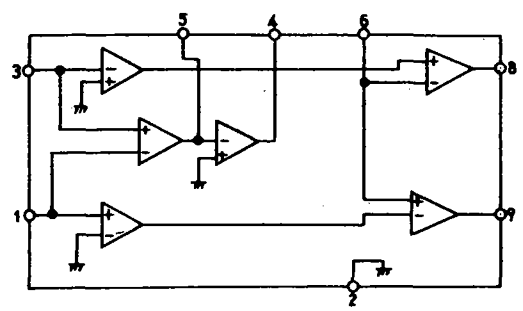


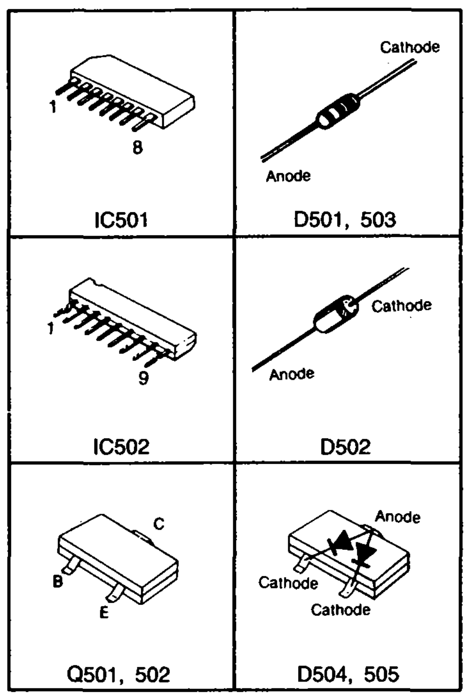
WIRING CONNECTION DIAGRAM MODEL RM-1100

IC501 RVIUPC1228H



IC502 RVIBA6133

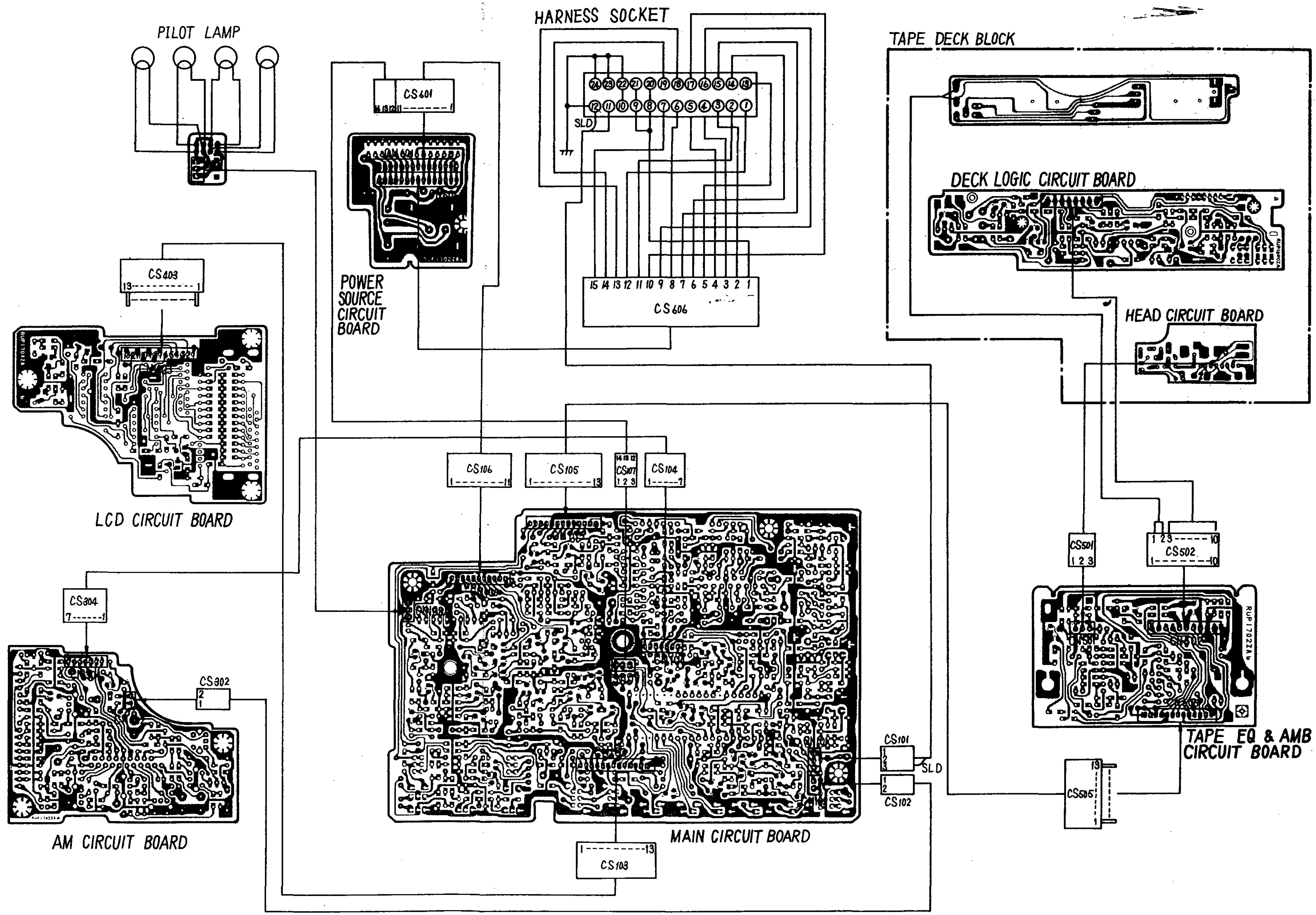




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BLOCK DIAGRAM

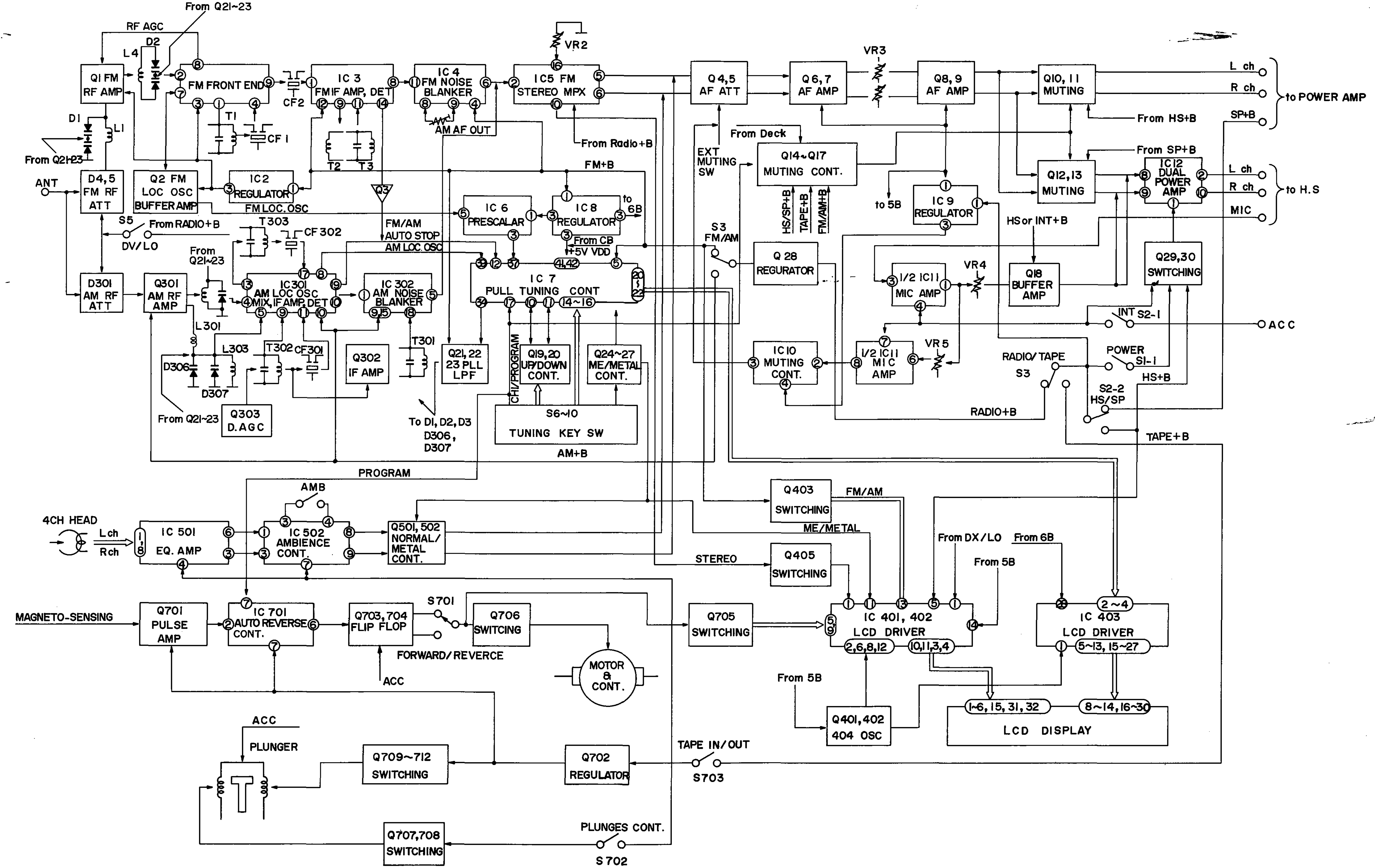


Fig. 28

MECHANISM PARTS LOCATION

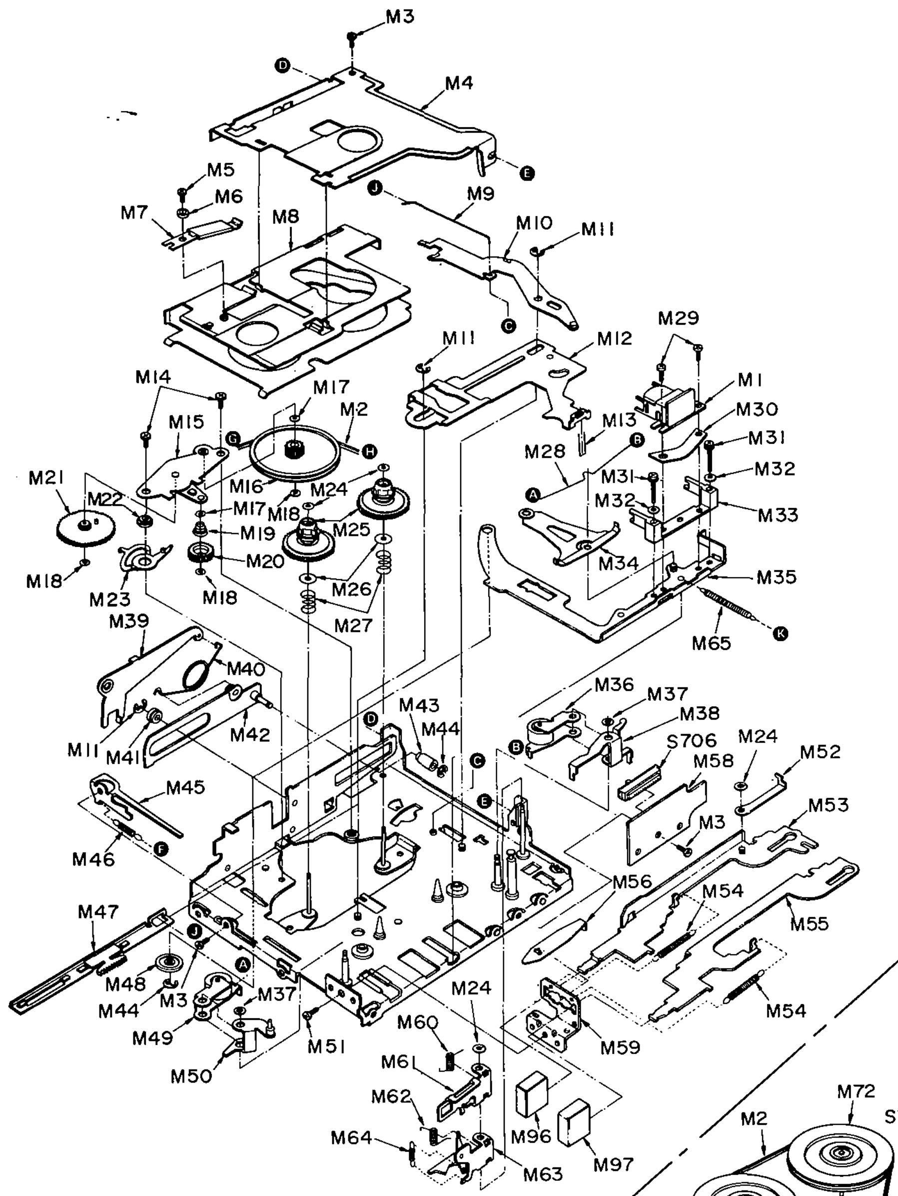


Fig. 29

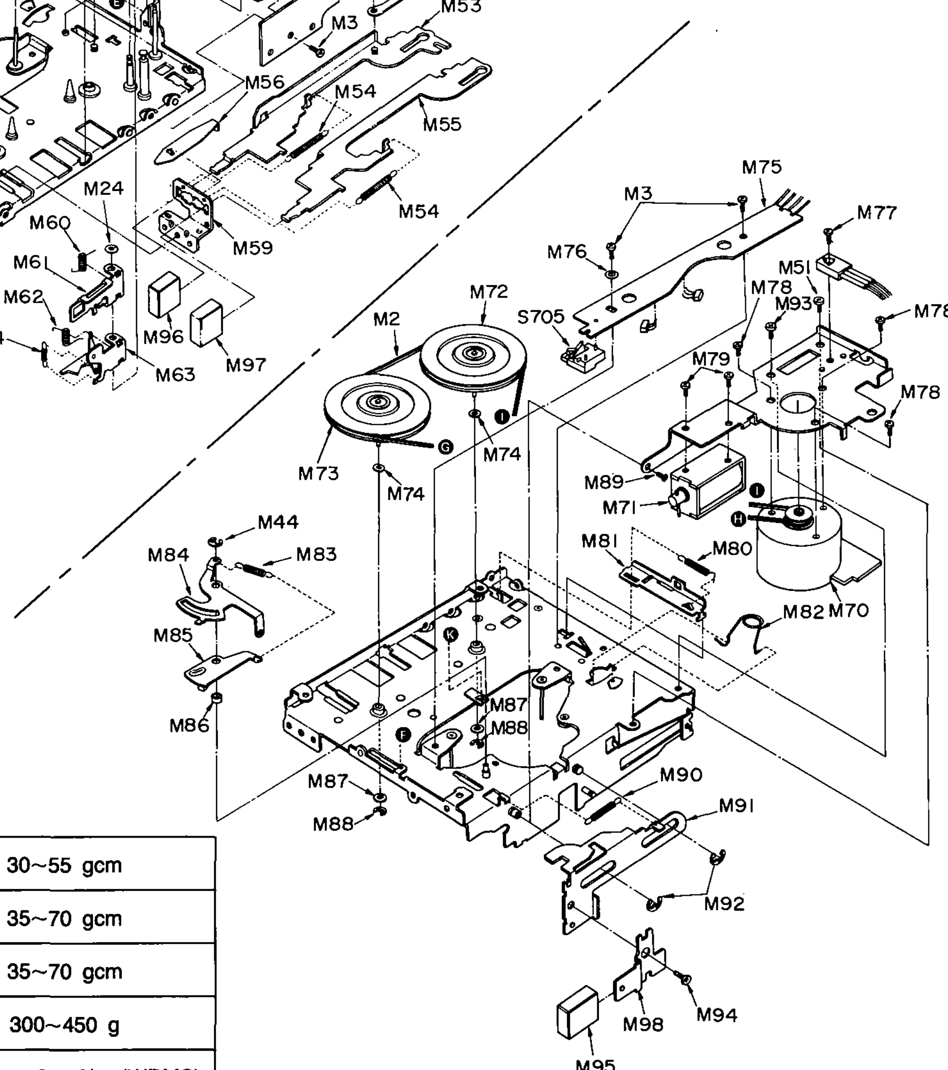


Fig. 30

■ SPECIFICATIONS

Takeup Torque	30~55 gcm
Fast Forward Torque	35~70 gcm
Rewind Torque	35~70 gcm
Pressure of pinch roller	300~450 g
Wow and flutter	Less than 0.15% (WRMS)

CABINET PARTS LOCATION

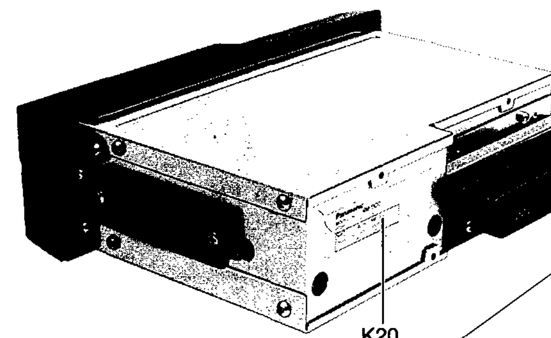


Fig. 31

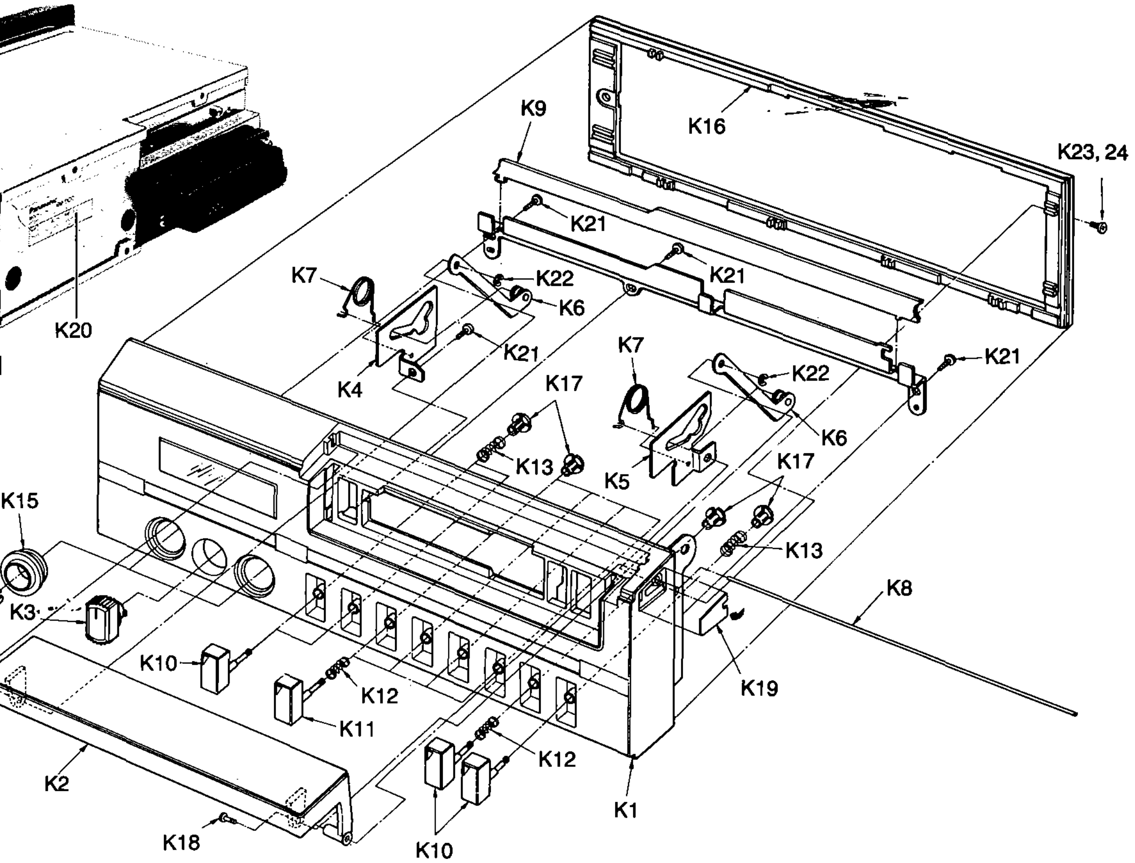


Fig. 32

ELECTRICAL PARTS LOCATION

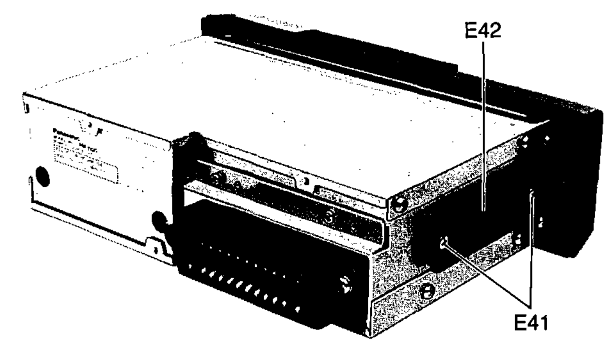


Fig. 33

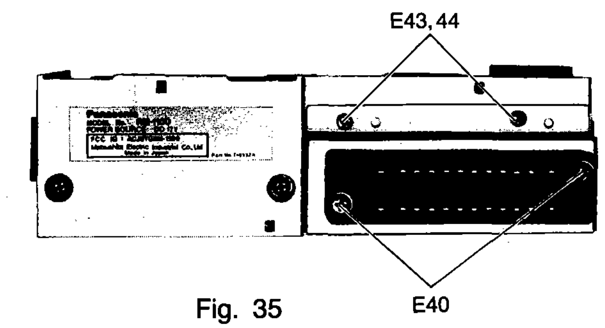


Fig. 35

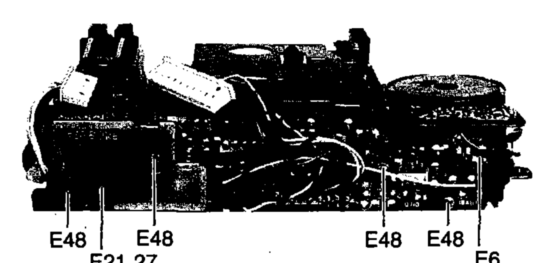


Fig. 34

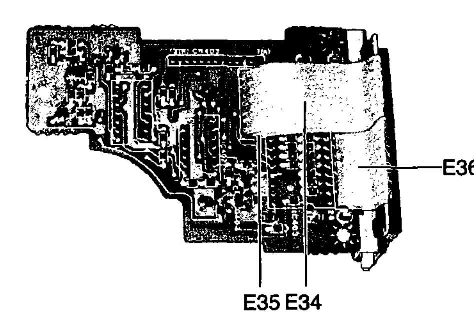


Fig. 36

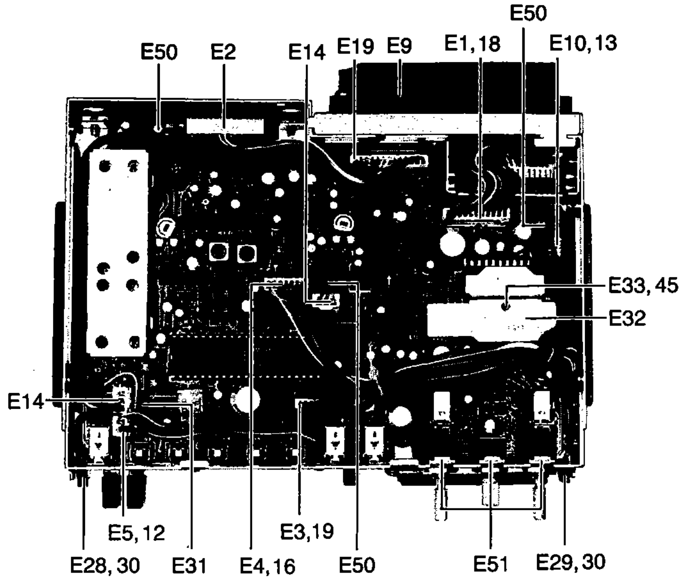


Fig. 37

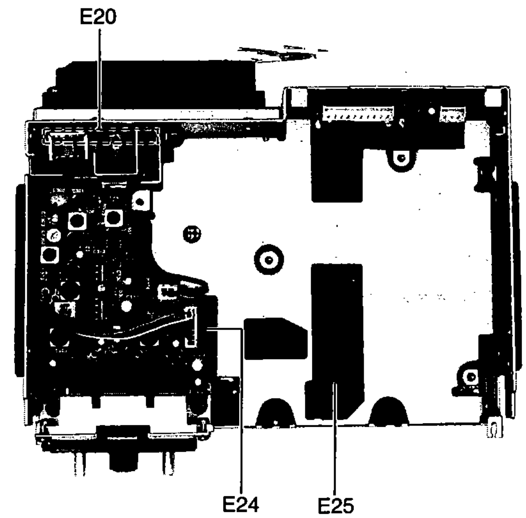


Fig. 40

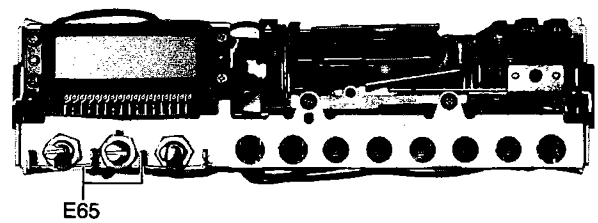


Fig. 41

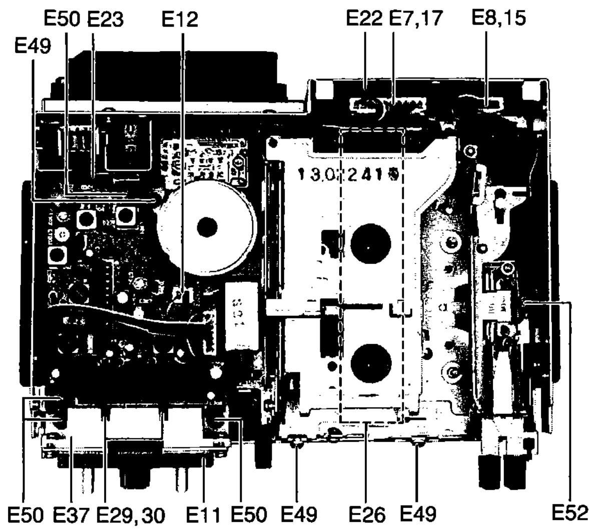


Fig. 38

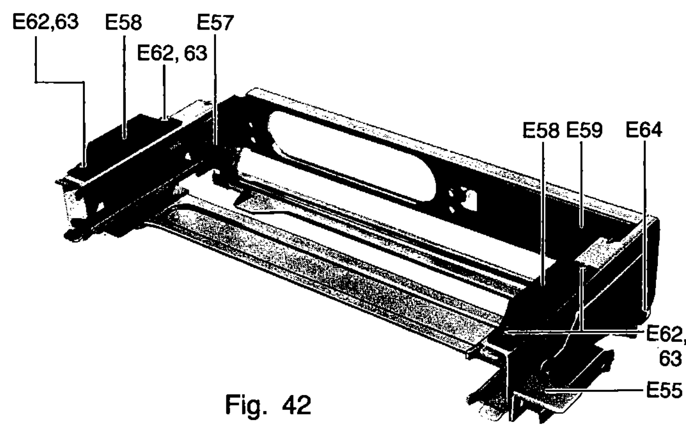


Fig. 42

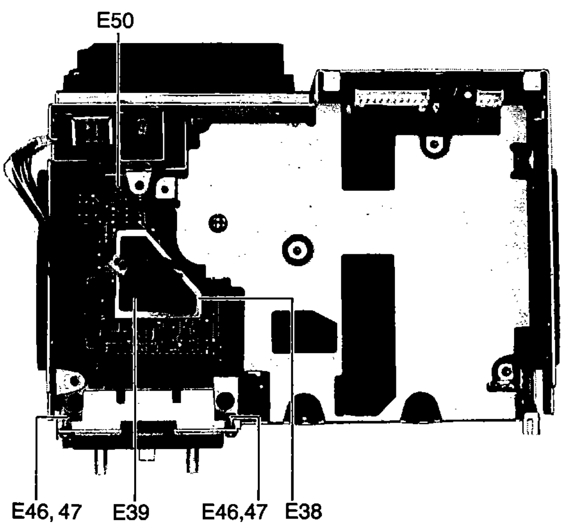


Fig. 39

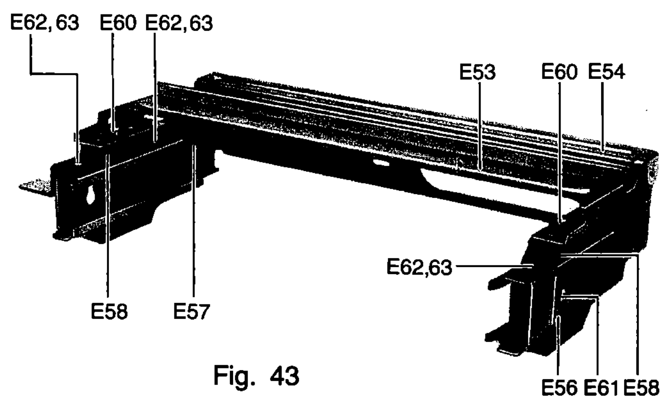


Fig. 43

■REPLACEMENT PARTS LIST··························RM-1100

(RD83072080C1)

Notes:

1. Important safety notice.
   Components identified by ⚠ mark have special characteristics important for safety.
   When-replacing any of these components, use only manufacturer's specified parts.
2. The S mark indicates service standard parts and may differ from production parts.
3. RESISTORS & CAPACITORS
   Unless otherwise specified.
   All resistors are in OHMS (Ω) K=1000Ω, M=1000kΩ
   All capacitors are in MICRO FARADS (μF) P=μμF

＊Type & Wattage of Resister

Type

ERC:Solid	ERX:Metal Film	ERW:Wirewound Resister
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resister
RRD:Chip	ERO:Metal Film	ERF:Cement Resister

Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W

＊Type & Voltage of Capacitor

Type

ECFW:Semi-conductor	ECCD,ECKD,ECBT:Ceramic
ECQS:Styrol	ECQM,ECQV,ECQG:Polyester
ECUX:Chip	ECEA,ECSZ :Electrolytic
ECMS:Mica	ECQP :Polypropylene

Voltage

ECQ Type	ECQG, ECQV, Type	ECSZ Type	Others	
1H: 50V	0,5: 50V	0F:3.15V	0J :6.3V	1H,1V,50: 50V
2A:100V	1:100V	1A:10V	1A :10V	1J : 63V
2E:500V	2:200V	1V:35V	1C :16V	2A :100V
2H:500V		0J:6.3V	1E,25:25V	

Ref. No.	Part No.	Part Name & Description	Per Set	
		MECHANICAL PARTS		
M1	RFH6Z	Playback Head Ass'y	1	
M2	RFB30Z	Main Belt	1	
M3	RFE109Z	Screw, Case Lifter etc. M'tg	5	
M4	RFD153Z	Case Lifter	1	
M5	RFE90Z	Screw, Pack Presure Spring M'tg	1	
M6	RFX77Z	Spacer, Pack Presure Spring	1	
M7	RFS306Z	Spring, Pack Presure	1	
M8	RFD152Z	Cassette Case B	1	
M9	RFS298Z	Tension Spring	1	
M10	RFY239Z	Change Lever	1	
M11	XUC2FT	E Ring, Main Plate, etc. M'tg	3	S
M12	RFU19Z	Main Plate	1	
M13	RFS296Z	Spring, Switch Operation Plate	1	
M14	RFE110Z	Screw, Gear Plate A M'tg	2	
M15	RFD150Z	Gear Plate A	1	
M16	RFG40Z	Main Gear	1	
M17	RFN87Z	Nylon Washer, FF/REW Gear	2	
M18	SMQ4930	Washer	3	
M19	RFS299Z	Spring, FF/REW Gear	1	
M20	RFG42Z	FF/REW Gear	1	
M21	RFG41Z	Reverse Gear	1	
M22	RFX74Z	Spacer, Gear Plate	1	
M23	RFY241Z	Reed Plate	1	
M24	SMQ4928	Washer, Reel Table	4	
M25	RFJ26Z	Reel Table	2	
M26	RFN86Z	Nylon Washer, Reel Table	2	
M27	RFS309Z	Spring, Reel Table	2	
M28	RFS295Z	Spring, Pinch Roller Arm Ass'y	1	
M29	XSN2+4	Screw, Playback Head M'tg	2	S

Ref.No.	Part No.	Part Name & Description	Per Set	
M30	RFS293Z	Plate Spring, Playback Head	1	
M31	XYN2+11F	Screw, Tape Guide M'tg	2	
M32	RFN89Z	Washer, Tape Guide M'tg	2	
M33	RFE107Z	Tape Guide	1	
M34	RFY237Z	Pinch Roller Operation Plate Ass'y	1	
M35	RFU18Z	Head Plate Ass'y	1	
M36	RFR12Z	Pinch Roller Arm (Right)	1	
M37	RFN51Z	Washer	2	
M38	RFY242Z	Switch Lever Arm	1	
M39	RFY253Z	Lift Up Lever	1	
M40	RFS307Z	Reverse Spring, Eject	1	
M41	RFX75Z	Spacer, Push Plate	1	
M42	RFY250Z	Push Plate	1	
M43	RFX76Z	Spacer, Push Plate	1	
M44	XUC15FT	E Ring, Push Plate Spacer	3	
M45	RFY238Z	Timing Plate	1	
M46	RFS294Z	Spring, Timing Plate	1	
M47	RFY240Z	Rack Plate	1	
M48	RFQ22Z	Head Base Plate Roller	1	
M49	RFR13Z	Pinch Roller Arm (Left)	1	
M50	RFY243Z	Pull Plate	1	
M51	RFE111Z	Screw, Lever Bracket, etc. M'tg	2	
M52	RFY249Z	Lock Sensor Push Plate	1	
M53	RFY245Z	Rewind Lever	1	
M54	RFS300Z	Spring, Rewind, FF Lever	2	
M55	RFY244Z	FF Lever	1	
M56	RFY246Z	Non-Lock Plate	1	
M58	RFT7Z	Circuit Board	1	
M59	RFD151Z	Bracket, Lever	1	
M60	RFS303Z	Spring, Lock Plate	1	
M61	RFY248Z	FF/REW Lock Plate	1	
M62	RFS302Z	Spring, Lock Release Plate	1	
M63	RFY247Z	Lock Release Plate	1	
M64	RFS301Z	Spring, Lock Release Plate	1	
M65	RFS346Z	Spring, Head Panel Ass'y	1	
M70	MMX4H2WDA	Motor Ass'y	1	
M71	RSE99Z	Key Off Plunger	1	
M72	RFF19Z	Flywheel Ass'y	1	
M73	RFF18Z	Flywheel Ass'y	1	
M74	RFN85Z	Nylon Washer, Flywheel Ass'y	2	
M75	RFT6Z	Circuit Board	1	
M76	RFN72Z	Washer, Circuit Board	1	
M77	RFE112Z	Screw, Transistor M'tg	1	
M78	RFE113Z	Screw, Motor Ass'y M'tg	3	
M79	RFE91Z	Screw, Key Off Plunger M'tg	2	
M80	RFS305Z	Spring, Switch Lever Arm	1	
M81	RFY252Z	Switch Lever Arm	1	
M82	RFS297Z	Reverse Spring, Change Plate	1	
M83	RFS308Z	Spring, Key Off Plate B	1	
M84	RFY255Z	Key Off Plate B	1	
M85	RFY254Z	Key Off Plate A	1	
M86	RFX78Z	Spacer, Key Off	1	
M87	RFN88Z	Nylon Washer, Flywheel Ass'y	2	
M88	RFE114Z	E Ring, Flywheel Ass'y M'tg	2	
M89	RFE108Z	Screw, Motor Bracket M'tg	1	
M90	RFS304Z	Spring, Eject Lever	1	
M91	RFY251Z	Lever, Eject	1	
M92	XUC3FT	E Ring, Eject Lever M'tg	2	S
M93	XTN26+4H	Screw, Motor Bracket M'tg	1	
M94	XYN26+J5	Screw, Lever M'tg	1	

Ref. No.	Part No.	Part Name & Description	Per Set	
M95	RBC483Y	Button, Eject	1	
M96	RBC482Y	Button, REW	1	
M97	RBC482Z	Button, FF	1	
M98	RUB284Z	Lever, Eject	1	
		INTEGRATED CIRCUITS, TRANSISTORS AND DIODES		
IC1	AN7254	IC	1	
IC2	RVIUPC78L08	IC	1	
IC3	RVILA1140	IC	1	
IC4	RVISTK2110D	IC	1	
IC5	RVILA3375	IC	1	
IC6	RVITD6104P	IC	1	
IC7	RVITC9137P	IC	1	
IC8	RVITA78L006P	IC	1	
IC9	RVIUPC78L05A	IC	1	
IC10	RVIM51203L	IC	1	
IC11	AN6550	IC	1	
IC12	RVITA7230P	IC	1	
IC301	RVIUPC1215VE	IC	1	
IC302	RVIM57171L	IC	1	
IC401, 402	RVITC4030BP	IC	2	
IC403	RVITD6301AP	IC	1	
IC501	RVIUPC1228H	IC	1	
IC502	RVIBA6133	IC	1	
IC701	AN6248	IC	1	
IC702, 703	DM106	IC	2	
Q1	3SK114Y	Transistor (Si)	1	
Q2	2SC1047-C	Transistor (Si)	1	S
Q3~5,10~13, 15,16,18, 23,25~27,30, 401~405,701, 703~707,710~712	2SD601R	Transistor (Si)	29	
Q6,7	2SD601S	Transistor (Si)	2	
Q8,9,19, 501,502	2SD601Q	Transistor (Si)	5	
Q14,17, 20,24	2SB709R	Transistor (Ge)	4	
Q21,22	2SC1623L6A	Transistor (Si)	2	
Q28	2SC1383NCR	Transistor (Si)	1	
Q29	2SA683NCR	Transistor (Ge)	1	
Q301	2SK184BL	Transistor (Si)	1	
Q302	2SC2295B	Transistor (Si)	1	
Q303	2SC1359B	Transistor (Si)	1	S
Q702	2SC2001K1	Transistor (Si)	1	
Q708,709	2SD965R	Transistor (Si)	2	
Q751,752	2SC1685-Q	Transistor (Si)	2	S
D1~3	RVD1SV103	Diode (Si)	3	
D4,5	MA56	Diode (Si)	2	
D6,7,10,12,13,17, 22,23,32,37,39, 42,303,304,309, 401,402,502	MA161	Diode (Si)	18	S
D8,9,305	RVDKB265G	Diode (Si)	3	S
D11,19, 38	MA1056	Diode (Si)	3	S
D14,18,20,27, 28,33,35,36, 41,702,705	MA151WK	Diode (Si)	11	
D15,16,24~26, 31,34,504,505	MA151WA	Diode (Si)	9	
D21,301	MA153	Diode (Si)	2	
D40	RVDRD12FB	Diode (Si)	1	S
D306~308	RVD1SV149	Diode (Si)	3	
D501	MA1082M	Diode (Si)	1	
D503	MA1068M	Diode (Si)	1	
D601,602,703,704	SM112	Diode (Si)	4	S
D701	MA1091M	Diode (Si)	1	
		CRYSTAL		
X1	RVCX7200NZN	Crystal	1	

Ref. No.	Part No.	Part Name & Description	Per Set	
		COILS AND TRANSFORMERS		
L1	RLO4N135	Coil, FM Antenna	1	
L2,3	RLQZB2R2K	Coil, Choke	2	
L4	RLO4N170	Coil, FM Antenna	1	
L5	RLO4N171	Coil, FM Oscillator	1	
L6	RLQZA470K	Coil, Choke	1	
L301,304	RLA2A3	Coil, AM Antenna	2	
L302	RLQZ1021	Coil, Choke	1	
L303	RLO2A8	Coil, AM Oscillator	1	
L601,602	RLT6D1A	Coil	2	
T1	RLI4A21	IFT, FM	1	
T2	RLI4A23	IFT, FM	1	
T3	RLI4A24	IFT, FM	1	
T301,303	RLI2A16	AM NB Transformer, IF	2	
T302	RLI2A17	IFT, AM	1	
		VARIABLE RESISTORS		
VR1,2	EVNM4AA00B14	Variable Resistor, Preset, 10KΩ (B)	2	S
VR3	EVU5R3250B15	Variable Resistor, 100KΩ (B)	1	
VR4	EVU6R3250B24	Variable Resistor, 20KΩ (B)	1	
VR5	EVU5KAP15D24	Variable Resistor, 20KΩ (D)	1	
		VARIABLE CAPACITORS		
CT1,2,301, 303	RCVTZ20F	Trimmer Capacitor	4	
CT3	RCVTZ11F	Trimmer Capacitor	1	
CT302	RCVCTZ51F	Trimmer Capacitor	1	
		CERAMIC FILTERS		
CF1	RVFSFE107MSR	Ceramic Filter	1	
CF2	RVFSFE107MAR	Ceramic Filter	1	
CF301	RVFSFP450H	Ceramic Filter	1	
CF302	RVFCFM2450Z	Ceramic Filter	1	
		SWITCHES		
S1,2	Refer to VR3			
S3~5	RSH2B27Z	Switch, BAND, AMB, SENS	3	
S6~10	EVQQSQ04K	Switch, ME, PROGRAM	5	
S701,702	ESB643	Switch, FF/REW	2	
S703	RSS2C02Z	Switch, Tape	1	
S705	RFA36Z	Switch, Mute	1	
S706	RFA37Z	Switch, Head	1	
		CABINET PARTS		
K1	RYP1M1100NHD	Front Panel Ass'y	1	
K2	RYP2M1100NHD	Cassette Cover Ass'y	1	
K3	RYTM1100NHD	Mute Knob Ass'y	1	
K4	RUL697Z	Bracket, Cassette Cover, Left	1	
K5	RUL698Z	Bracket, Cassette Cover, Right	1	
K6	RUL9003Z	Lever, Cassette Cover	2	
K7	RUS515Z	Spring, Cassette Cover	2	
K8	RDF828Z	Shaft, Cassette Cover	1	
K9	RGE74Z	Panel, Indicator	1	
K10	RBC481Z	Button, BAND, SENS, ME & AMB	4	
K11	RBC481Z1	Button, PRESET	4	
K12	RDS3094Z	Spring, Preset Button	5	
K13	RDS4101Z	Spring, Band etc.	3	
M14	RBN651Y	Knob, VOLUME, INT COM	2	
K15	RHG3001Z	Rubber, Knob	2	
K16	RHG9000Z	Rubber, Front Panel	1	
K17	RHR475Z	Stopper, Button	8	
K18	RHM164Z	Shaft, Cassette Cover	2	
K19	RGX1367Z	Ornament	1	
K20	RGT1033Z	Name Plate	1	
K21	XTN26+8C	Screw, Bracket M'tg	5	
K22	XUC12FT	Circlip, Cassette Cover	2	S
K23	XSN3+6S	Screw, Cassette Cover Bracket	1	S
K24	XWA3B	Washer	1	S
		ELECTRICAL PARTS		
E1	RWN1M1100NHD	Socket Ass'y, CN106, 107,601	1	

Ref. No.	Part No.	Part Name & Description	Per Set
E2	RWN2M1100NHD	Socket Ass'y, CN105,505	1
E3	RWN3M1100NHD	Socket Ass'y, CN103,403	1
E4	RWN4M1100NHD	Socket Ass'y, CN104,304	1
E5	RWN5M1100NHD	Socket Ass'y, CN102,302	1
E6	RWN6M1100NHD	Socket Ass'y, Deck Circuit Board	1
E7	RWN7M1100NHD	Socket Ass'y, CN502	1
E8	RWN8M1100NHD	Socket Ass'y, CN501	1
E9	RJS0R1Z	Socket	1
E10	RJS3M1Z	Socket, CN108B	1
E11	RADAM811C	Display	1
E12	RJP2G4Y	Plug, CN102,302	2
E13	RJP3G1Z	Plug, CN108A	1
E14	RJP3G4Y	Plug, CN101,107	2
E15	RJP3G9Y	Plug, CN501	1
E16	RJP7G10Z	Plug, CN104,303	2
E17	RJP10G9Y	Plug, CN502	1
E18	RJP11G10Z	Plug, CN106	1
E19	RJP13G10Z	Plug, CN103,105	2
E20	RJP15G10Z	Plug, CN606	1
E21	RMC910Z	Shield Cover	1
E22	RMX248Z	Insulator	1
E23	RMX249Z	Insulator	1
E24	RMX250Z	Insulator	1
E25	RMX252Z	Insulator	1
E26	RMX256Z	Insulator	1
E27	RMX260Z	Insulator	1
E28	XAMR82R300	Pilot Lamp	1
E29	XAMR82R200	Pilot Lamp	3
E30	RHG225Z	Lamp Holder	4
E31	XANR13T33	Neon Lamp	1
E32	RMY188Z	Heat Sink	1
E33	RHM168Z	Spacer, Heat Sink	1
E34	RJE140Z	Lead Wire	1
E35	RJE141Z	Lead Wire	1
E36	RJE142Z	Lead Wire	2
E37	RMP204Z	Holder, Display	1
E38	RMC890Z	Shield Cover	1
E39	RMX251Z	Insulator, Shield Cover	1
E40	RHE5047Z	Screw, Socket M'tg	2
E41	RHE5048Z	Screw, Slider M'tg	4
E42	RKC80Z	Slider	2
E43	XSN3+4S	Screw, Bracket, Socket M'tg	4 S
E44	XWA3B	Washer	4 S
E45	XTB3+8BFZ	Screw, Heat Sink M'tg	1 S
E46	XSN26+6	Screw, Display M'tg	2 S
E47	XWA26B	Washer	2 S
E48	XTB2+4F	Screw, Circuit Board M'tg	4
E49	XTV26+5F	Screw, Deck M'tg	5
E50	XTV3+6F	Screw, Bracket, Circuit Board M'tg	24
E51	XNS7D	Nut Volume Mute, Int Cum	3
E52	RHR166Z	Lead Clamper	2
E53	RUA547Z	Frame, Bottom	1
E54	RUA9019Z	Lock Lever	1
E55	RUA9020Z	Lever, Lock Lever	1
E56	RUS514Z	Spring, Slider	1
E57	RDS5140Z	Spring, Lock Lever	2
E58	RHG9001Z	Cushion, Frame	4
E59	RKC82Z	Frame	1
E60	XYN4+F6	Screw	2
E61	XTV3+6F	Screw	1
E62	XSN3+4S	Screw	8 S
E63	XWA3B	Washer	8 S
E64	XUC3FT	Circlip	1 S
E65	RUS542Z	Spring, Volume	2

Ref. No.	Part No.	Value
	RESISTORS	
R1	RRD18XJ681	680
R2	RRD18XJ681	680
R3	RRD18XJ473	47K

Ref. No.	Part No.	Value
R4	RRD18XJ104	100K
R5	RRD18XJ334	330K
R6	RRD18XJ224	220K

Ref. No.	Part No.	Value
R7	RRD18XJ274	270K
R8	RRD18XJ470	47
R9	RRD18XJ470	47
R10	RRD18XJ471	470
R11	RRD18XJ181	180
R12	RRD18XJ102	1K
R13	RRD18XJ471	470
R14	RRD18XJ104	100K
R15	RRD18XJ470	47
R16	RRD18XJ104	100K
R17	RRD18XJ103	10K
R18	RRD18XJ104	100K
R19	RRD18XJ331	330
R20	RRD18XJ103	10K
R21	RRD18XJ272	2.7K
R24	RRD18XJ331	330
R25	RRD18XJ103	10K
R26	RRD18XJ822	8.2K
R27	ERD25FJ103	10K S
R28	RRD18XJ472	4.7K
R29	RRD18XJ473	47K
R30	RRD18XJ473	47K
R31	RRD18XJ102	1K
R34	RRD18XJ223	22K
R35	RRD18XJ101	100
R36	RRD18XJ123	12K
R37	RRD18XJ821	820
R38	RRD18XJ473	47K
R39	RRD18XJ472	4.7K
R40	RRD18XJ223	22K
R41	RRD18XJ222	2.2K
R42	RRD18XJ333	33K
R43	RRD18XJ223	22K
R44	RRD18XJ101	100
R45	RRD18XJ153	15K
R46	RRD18XJ102	1K
R47	RRD18XJ822	8.2K
R48	RRD18XJ123	12K
R49	RRD18XJ821	820
R51	RRD18XJ392	3.9K
R52	RRD18XJ392	3.9K
R53	RRD18XJ563	56K
R54	RRD18XJ563	56K
R55	RRD18XJ223	22K
R56	RRD18XJ223	22K
R57	RRD18XJ223	22K
R58	RRD18XJ103	10K
R59	RRD18XJ392	3.9K
R60	RRD18XJ392	3.9K
R61	RRD18XJ334	330K
R62	RRD18XJ334	330K
R63	RRD18XK105	1M
R64	RRD18XK105	1M
R65	RRD18XJ332	3.3K
R66	RRD18XJ332	3.3K
R67	RRD18XJ471	470
R68	RRD18XJ471	470
R75	RRD18XJ154	150K
R76	RRD18XJ154	150K
R77	RRD18XJ102	1K
R78	RRD18XJ102	1K
R79	RRD18XJ223	22K
R80	RRD18XJ223	22K
R81	RRD18XJ472	4.7K
R82	RRD18XJ472	4.7K
R83	RRD18XJ333	33K
R84	RRD18XJ333	33K
R85	RRD18XJ103	10K
R86	RRD18XJ103	10K
R87	RRD18XJ221	220
R88	RRD18XJ221	220
R89	RRD18XJ332	3.3K
R90	RRD18XJ104	100K
R91	RRD18XJ104	100K
R92	RRD18XJ103	10K
R93	RRD18XJ562	5.6K

Ref. No.	Part No.	Value
R94	RRD18XJ103	10K
R95	RRD18XJ472	4.7K
R96	RRD18XJ472	4.7K
R97	RRD18XJ471	470
R98	RRD18XJ472	4.7K
R99	RRD18XJ103	10K
R100	RRD18XJ333	33K
R101	RRD18XJ102	1K
R102	RRD18XJ334	330K
R103	RRD18XJ152	1.5K
R104	RRD18XJ222	2.2K
R105	RRD18XK105	1M
R106	RRD18XJ103	10K
R107	RRD18XJ103	10K
R108	RRD18XJ104	100K
R109	RRD18XJ104	100K
R110	RRD18XJ153	15K
R111	RRD18XJ104	100K
R112	RRD18XJ563	56K
R113	RRD18XJ223	22K
R114	RRD18XJ223	22K
R115	RRD18XJ104	100K
R116	RRD18XJ473	47K
R117	RRD18XJ473	47K
R118	RRD18XJ473	47K
R119	RRD18XJ473	47K
R120	RRD18XJ473	47K
R121	RRD18XJ104	100K
R122	RRD18XJ104	100K
R123	RRD18XJ223	22K
R124	RRD18XJ223	22K
R125	RRD18XJ273	27K
R126	RRD18XJ273	27K
R127	RRD18XJ473	47K
R128	RRD18XJ102	1K
R129	RRD18XJ103	10K
R130	RRD18XJ683	68K
R131	RRD18XJ683	68K
R132	RRD18XJ102	1K
R133	RRD18XJ273	27K
R134	RRD18XJ102	1K
R135	RRD18XJ104	100K
R136	RRD18XJ823	82K
R137	RRD18XJ823	82K
R138	RRD18XJ103	10K
R139	RRD18XJ102	1K
R140	RRD18XJ223	22K
R141	RRD18XJ472	4.7K
R142	RRD18XJ104	100K
R143	RRD18XJ473	47K
R144	RRD18XJ472	4.7K
R145	RRD18XJ223	22K
R146	RRD18XJ223	22K
R147	RRD18XJ103	10K
R149	RRD18XJ474	470K
R150	RRD18XJ153	15K
R151	RRD18XJ681	680
R152	RRD18XJ151	150
R153	RRD18XJ103	10K
R154	RRD18XJ473	47K
R155	RRD18XJ472	4.7K
R156	RRD18XK105	1M
R157	ERD25FJ153	15K S
R158	RRD18XJ221	220
R159	RRD18XJ473	47K
R160	ERD25FJ681	680 S
R161	RRD18XJ272	2.7K
R162	RRD18XJ561	560
R163	RRD18XJ272	2.7K
R164	RRD18XJ272	2.7K
R165	RRD18XJ272	2.7K
R166	RRD18XJ272	2.7K
R167	RRD18XJ272	2.7K
R168	RRD18XJ103	10K
R169	RRD18XJ222	2.2K
R170	RRD18XJ223	22K
R171	RRD18XJ223	22K

Ref. No.	Part No.	Value
R172	RRD18XJ682	6.8K
R175	RRD18XJ682	6.8K
R301	RRD18XJ474	470K
R302	RRD18XJ332	3.3K
R303	ERD10TJ332	3.3K S
R304	RRD18XK105	1M
R305	RRD18XJ270	27
R306	RRD18XJ182	1.8K
R307	RRD18XJ474	470K
R308	RRD18XJ330	33
R309	RRD18XJ474	470K
R310	RRD18XJ470	47
R311	RRD18XJ104	100K
R312	RRD18XJ104	100K
R313	RRD18XJ103	10K
R314	RRD18XJ104	100K
R315	RRD18XJ101	100
R316	RRD18XJ473	47K
R317	RRD18XJ103	10K
R318	RRD18XJ152	1.5K
R319	RRD18XJ103	10K
R320	RRD18XJ332	3.3K
R321	RRD18XJ332	3.3K
R322	RRD18XJ222	2.2K
R323	RRD18XJ153	15K
R324	RRD18XJ222	2.2K
R325	RRD18XJ151	150
R326	RRD18XJ222	2.2K
R327	RRD18XJ474	470K
R328	RRD18XJ153	15K
R330	RRD18XJ470	47
R332	RRD18XJ683	68K
R333	ERD25FJ470	47 S
R401	RRD18XJ104	100K
R402	RRD18XJ333	33K
R403	RRD18XJ473	47K
R404	RRD18XJ823	82K
R405	RRD18XJ222	2.2K
R406	RRD18XJ103	10K
R407	RRD18XJ223	22K
R408	RRD18XJ333	33K
R409	RRD18XJ473	47K
R410	RRD18XJ222	2.2K
R411	RRD18XJ101	100
R412	RRD18XJ473	47K
R413	RRD18XJ104	100K
R414	RRD18XJ473	47K
R415	RRD18XJ103	10K
R416	RRD18XJ103	10K
R417	RRD18XJ473	47K
R418	RRD18XJ101	100
R420	RRD18XJ473	47K
R421	RRD18XJ104	100K
R422	RRD18XJ104	100K
R423	RRD18XJ104	100K
R424	RRD18XJ104	100K
R425	RRD18XJ104	100K
R426	RRD18XJ104	100K
R427	RRD18XJ104	100K
R428	RRD18XJ104	100K
R429	RRD18XJ104	100K
R430	RRD18XJ104	100K
R431	RRD18XJ104	100K
R432	RRD18XJ104	100K
R433	RRD18XJ104	100K
R434	RRD18XJ104	100K
R435	RRD18XJ104	100K
R436	RRD18XJ104	100K
R437	RRD18XJ104	100K
R438	RRD18XJ104	100K
R439	RRD18XJ104	100K
R440	RRD18XJ104	100K
R441	RRD18XJ104	100K
R442	RRD18XJ104	100K
R443	RRD18XJ473	47K
R444	RRD18XJ473	47K

Ref. No.	Part No.	Value
R501	RRD18XJ274	270K
R502	RRD18XJ274	270K
R503	RRD18XJ334	330K
R504	RRD18XJ334	330K
R505	RRD18XJ224	220K
R506	RRD18XJ224	220K
R507	RRD18XJ271	270
R508	RRD18XJ271	270
R509	RRD18XJ223	22K
R510	RRD18XJ223	22K
R511	RRD18XJ474	470K
R512	RRD18XJ474	470K
R513	RRD18XJ272	2.7K
R514	RRD18XJ272	2.7K
R515	RRD18XJ334	330K
R516	RRD18XJ334	330K
R517	RRD18XJ332	3.3K
R518	RRD18XJ332	3.3K
R519	RRD18XJ101	100
R521	RRD18XJ101	100
R522	RRD18XJ121	120
R523	RRD18XJ223	22K
R524	RRD18XJ272	2.7K
R525	RRD18XJ102	1K
R526	RRD18XJ104	100K
R527	ERD25FJ102	1K S
R528	ERD10TJ331	330 S
R530	RRD18XJ101	100
R531	RRD18XJ333	33K
R702	RRD18XJ224	220K
R703	RRD18XJ222	2.2K
R704	RRD18XJ333	33K
R705	RRD18XJ104	100K
R706	RRD18XJ471	470
R707	RRD18XJ472	4.7K
R708	RRD18XJ473	47K
R709	RRD18XJ473	47K
R710	RRD18XJ472	4.7K
R711	RRD18XJ223	22K
R712	RRD18XJ104	100K
R713	RRD18XJ104	100K
R714	RRD18XJ104	100K
R715	RRD18XJ122	1.2K
R716	RRD18XJ103	10K
R717	RRD18XJ103	10K
R718	RRD18XJ103	10K
R719	RRD18XJ122	1.2K
R720	RRD18XJ222	2.2K
R721	RRD18XJ102	1K
R722	RRD18XJ222	2.2K
R751	ERD25FJ103	10K S
R752	ERD25FJ103	10K S
R753	ERD25FJ221	220 S
R754	ERD25FJ221	220 S
R755	ERD25FJ224	220K S
	CAPACITORS	
C1	ECUX1H102MD	0.001
C2	ECUX1H102MD	0.001
C3	ECUX1H102MD	0.001
C4	ECUX1H270KC	27P
C5	ECUX1H150KC	15P
C6	ECEA1CK100	10
C7	ECUX1H102MD	0.001
C8	ECUX1H102MD	0.001
C9	ECEA1CK100	10
C10	ECUX1H102MD	0.001
C11	ECUX1H102MD	0.001
C12	ECUX1H102MD	0.001
C13	ECUX1H102MD	0.001
C14	ECUX1H102MD	0.001
C15	ECUX1H102MD	0.001
C16	ECUX1H102MD	0.001
C17	ECUX1H102ZF	0.001
C19	ECUX1H103ZF	0.01
C20	ECUX1H050DC	5P

Ref. No.	Part No.	Value
C21	ECUX1H103MD	0.01
C22	ECUX1H103ZF	0.01
C23	ECUX1H150KC	15P
C24	ECUX1H390KC	39P
C25	ECUX1H030CC	3P
C26	ECUX1H180KC	18P
C27	ECEA1HK010	1
C28	ECUX1H103ZF	0.01
C30	ECUX1H223MD	0.022
C32	ECEA1ASS101	100
C33	ECUX1H223MD	0.022
C34	ECEA1EK4R7	4.7
C35	ECEA1HK010	1
C36	ECEA1HKR33	0.33
C37	ECUX1H101K	100P
C38	ECUX1H223ZF	0.022
C39	ECEA1CK470	47
C40	ECUX1H223MD	0.022
C41	ECUX1H223ZF	0.022
C42	ECEA1EK4R7	4.7
C43	ECFV1E223MD	0.022
C44	ECUX1H103ZF	0.01
C45	ECEA1HK010	1
C46	ECEA1AK220	22
C47	ECEA1CK470	47
C48	ECEA1CN100	10
C49	ECUX1H332MD	0.0033
C50	ECUX1E473MD	0.047
C51	ECUX1H101K	100P
C52	ECUX1H104MD	0.1
C53	ECEA1CK470	47
C54	ECUX1H223MD	0.022
C55	ECUX1H333ZF	0.033
C56	ECEA1HK2R2	2.2
C57	ECEA1HK3R3	3.3
C58	ECEA1HK010	1
C59	ECQP2A102JZ	1000P
C60	ECEA0JK101	100
C61	ECUX1H223MD	0.022
C62	ECUX1H223MD	0.022
C63	ECEA1HK010	1
C64	ECEA1HK010	1
C66	ECUX1H102MD	0.001
C67	ECEA1HK010	1
C68	ECEA1HK010	1
C69	ECEA1HK010	1
C70	ECEA1HK010	1
C75	ECEA1HK010	1
C76	ECEA1HK010	1
C77	ECEA1HK3R3	3.3
C78	ECEA1HK3R3	3.3
C79	ECSF1VE104	0.1
C80	ECSF1VE104	0.1
C81	ECEA1HK2R2	2.2
C82	ECEA1HK2R2	2.2
C83	ECEA1CSS471	470
C84	ECEA1AK220	22
C85	ECEA1ASS221	220
C86	ECEA1ASS221	220
C87	ECUX1H104MD	0.1
C88	ECUX1H104MD	0.1
C89	ECEA1HK010	1
C90	ECUX1E473MD	0.047
C91	ECEA0JK470	47
C92	ECUX1H223ZF	0.022
C93	ECUX1H103ZF	0.01
C94	ECEA1HK010	1
C95	ECUX1H222MD	0.0022
C96	ECUX1H102MD	0.001
C97	ECEA1CK100	10
C98	ECQG05474JZ	0.47
C99	ECEA1CK470	47
C100	ECUX1H103ZF	0.01
C101	ECEA0JK101	100
C102	ECUX1H473MD	0.047
C104	ECEA0JK101	100
C105	ECEA1CK100	10

Ref. No.	Part No.	Value
C106	ECEA1HK2R2	2.2
C107	ECEA1CSS101	100
C108	ECEA1EK4R7	4.7
C109	ECEA1HK3R3	3.3
C110	ECEA1HK3R3	3.3
C111	ECEA1HK3R3	3.3
C112	ECEA1HK3R3	3.3
C113	ECEA1HK3R3	3.3
C114	ECUX1H103ZF	0.01
C115	ECUX1H103ZF	0.01
C116	ECEA0JSS102	1000
C117	ECEA1HK010	1
C118	ECUX1H223ZF	0.022
C119	ECUX1H330KC	33P
C120	ECUX1H220KC	22P
C121	ECUX1E473MD	0.047
C122	ECUX1E473MD	0.047
C123	ECSF1AE225	2.2
C124	ECUX1H223ZF	0.022
C125	ECEA1HK010	1
C126	ECUX1E104MD	0.1
C127	ECEA0JK470	47
C128	ECEA1HK010	1
C129	ECUX1E473MD	0.047
C130	ECUX1H470KC	47P
C131	ECSF1VE104	0.1
C132	ECUX1E473MD	0.047
C133	ECEA0JK101	100
C134	ECUX1H560KC	56P
C135	ECEA1CK100	10
C136	ECEA1CK470	47
C137	ECUX1E473MD	0.047
C138	ECEA1CSS221	220
C139	ECUX1H472MD	0.0047
C140	ECUX1H472MD	0.0047
C141	ECUX1H223ZF	0.022
C142	ECUX1H223ZF	0.022
C145	ECKD1H103ZF	0.01
C301	ECUX1H223ZF	0.022
C302	ECUX1H471K	470P
C303	ECUX1H223ZF	0.022
C304	ECUX1H101K	100P
C305	ECUX1H223ZF	0.022
C306	ECEA1CK100	10
C307	ECUX1H153MD	0.015
C308	ECEA1CK470	47
C309	ECUX1E473MD	0.047
C310	ECUX1H223ZF	0.022
C311	ECUX1H223ZF	0.022
C312	ECEA1EK4R7	4.7
C313	ECKD1H103ZF	0.01
C314	ECUX1H102ZF	0.001
C315	ECUX1H103ZF	0.01
C316	ECUX1H220KC	22P
C317	ECUX1H153MD	0.015
C318	ECQP2A471JZ	470P
C319	ECEA1HKR47	0.47
C320	ECUX1H223ZF	0.022
C321	ECEA1AK220	22
C322	ECEA1CK100	10
C323	ECUX1H103MD	0.01
C324	ECUX1H223ZF	0.022
C325	ECUX1H223ZF	0.022
C326	ECEA1EK4R7	4.7
C327	ECEA1CK470	47
C328	ECUX1H333ZF	0.033
C329	ECEA1HK010	1
C330	ECUX1H472MD	0.0047
C332	ECUX1H682MD	0.0068
C334	ECUX1H153MD	0.015
C336	ECUX1H223ZF	0.022
C338	ECUX1H103MD	0.01
C340	ECUX1H103MD	0.01
C342	ECUX1H332MD	0.0033
C344	ECUX1H223MD	0.022
C346	ECUX1E473MD	0.047

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
C348	ECEA1HK0R1	0.1									
C350	ECUX1H103MD	0.01									
C401	ECEA0JK470	47									
C402	ECUX1E473MD	0.047									
C404	ECUX1E104MD	0.1									
C405	ECUX1E104MD	0.1									
C406	ECUX1E104MD	0.1									
C407	ECUX1E104MD	0.1									
C501	ECEA1HKR22	0.22									
C502	ECEA1HKR22	0.22									
C503	ECUX1H152MD	0.0015									
C505	ECEA0JK330	33									
C506	ECEA0JK330	33									
C507	ECEA1ASS221	220									
C508	ECEA1CK100	10									
C509	ECUX1H682MD	0.0068									
C510	ECUX1H682MD	0.0068									
C511	ECEA1CK100	10									
C512	ECEA1CK100	10									
C513	ECEA1CK470	47									
C515	ECUX1H223MD	0.022									
C516	ECUX1H223MD	0.022									
C517	ECEA1CK100	10									
C518	ECEA1CK100	10									
C519	ECEA1AK330	33									
C520	ECUX1H223MD	0.022									
C521	ECUX1H223MD	0.022									
C522	ECEA1CN100	10									
C523	ECEA1CK470	47									
C525	ECEA1HK010	1									
C526	ECEA1HK010	1									
C530	ECBC1E152MX	0.0015									
C601	ECUX1H102ZF	0.001									
C602	ECUX1H102ZF	0.001									
C603	ECUX1H102ZF	0.001									
C604	ECUX1H102ZF	0.001									
C605	ECUX1H102ZF	0.001									
C606	ECUX1H102ZF	0.001									
C607	ECEA1CSS471	470									
C608	ECUX1H102ZF	0.001									
C609	ECUX1H102ZF	0.001									
C610	ECUX1H102ZF	0.001									
C611	ECUX1H102ZF	0.001									
C612	ECUX1H102ZF	0.001									
C613	ECUX1H102ZF	0.001									
C614	ECUX1H102ZF	0.001									
C615	ECEA1CSS221	220									
C701	ECEA1HS010	1									
C702	ECEA1AS470	47									
C703	ECQV05334JZ	0.33									
C704	ECEA1AK470	47									
C705	ECEA1AK470	47									
C706	ECUX1E473MD	0.047									
C707	ECUX1E473MD	0.047									
C708	ECUX1E104MD	0.1									
C709	ECUX1H682MD	0.0068									
C710	ECEA1CU330	33									
C711	ECEA1CU330	33									

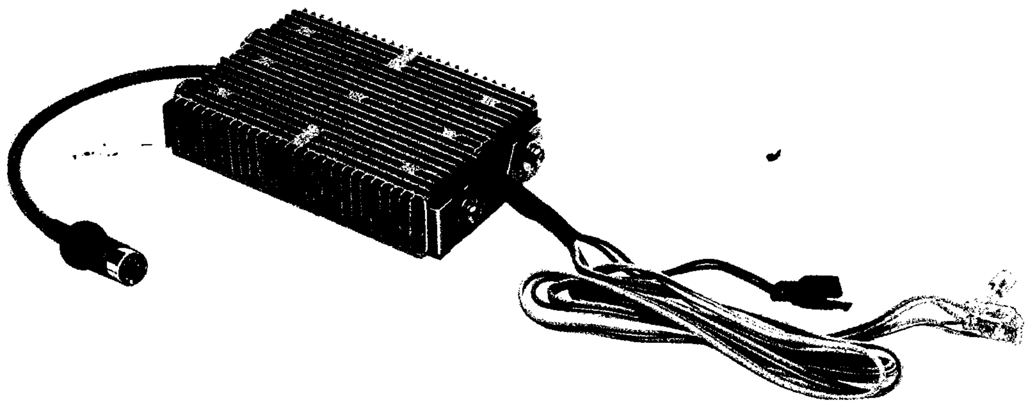
ORDER NO. RD83072081C1

Service Manual

Car Audio

POWER AMPLIFIER RM-M1100

CUSTOM-MADE FOR HONDA



■ SPECIFICATIONS

Rated Power Output:	12 W/CH (5% THD)
Output Impedance:	4Ω
Power Source:	DC 12 V (Negative ground)
Test Voltage:	14 V
Power Consumption:	3.5A (at rated power output)
Dimension:	136 (W)×30 (H)×96 (D) mm (5⁵⁄₁₆"×1³⁄₁₆"×3¹³⁄₁₆")
Weight:	0.7 kg (1 lb ½ oz)

Specifications are subject to change without notice.

Panasonic®

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5770 Ambler Drive, Mississauga,
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Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.
Ave, 65 De Infanteria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630

DISASSEMBLY INSTRUCTIONS

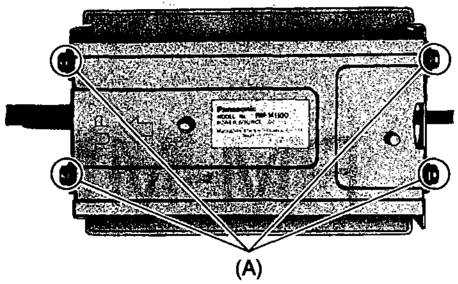


Fig. 1

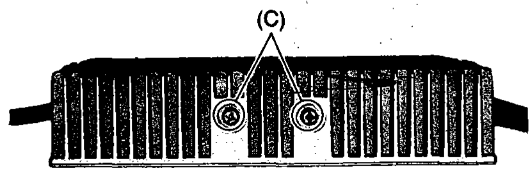


Fig. 3

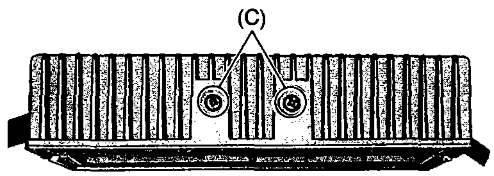


Fig. 4

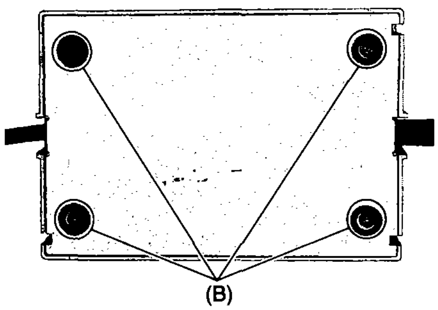


Fig. 2

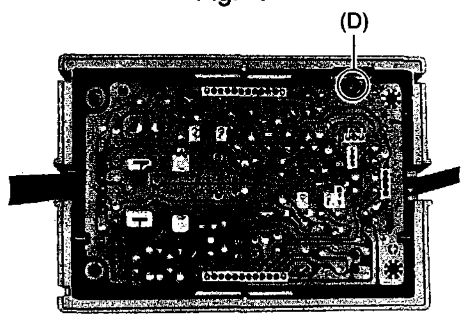


Fig. 5

Ref. No.	Procedure	Shown in Fig.—	To remove—.	Remove—.
1	1~4	1	Circuit Board	Screw (5×16) .... (A)×4
2		2		Screw (3×10) .... (B)×4
3		3,4		Screw (3×12) .... (C)×4
4		5		Screw (3×10) .... (D)×1

ELECTRICAL PARTS LOCATION

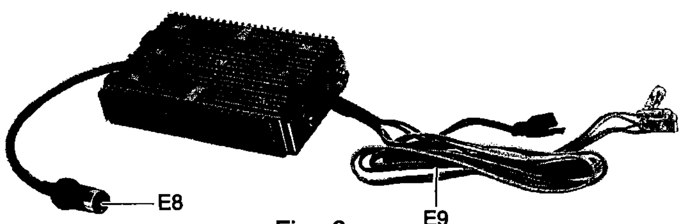


Fig. 6

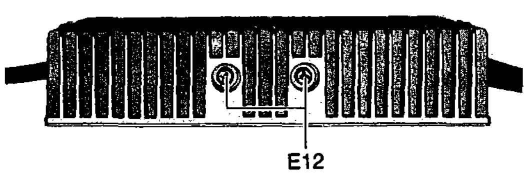


Fig. 7

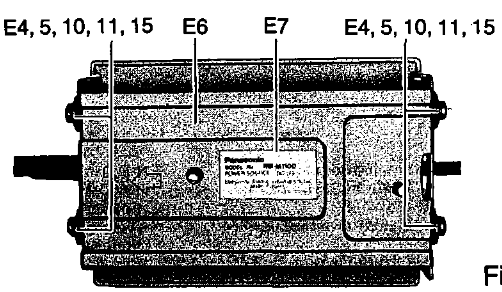


Fig. 8

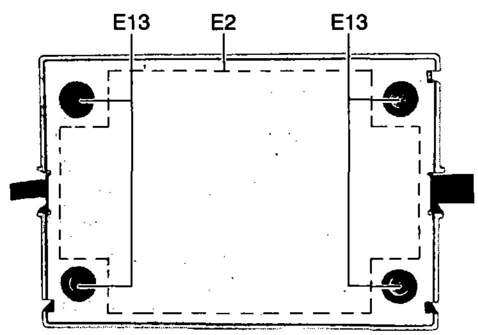


Fig. 9

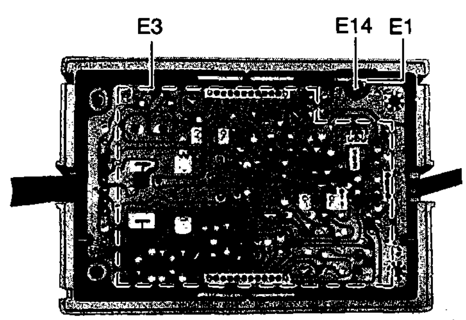
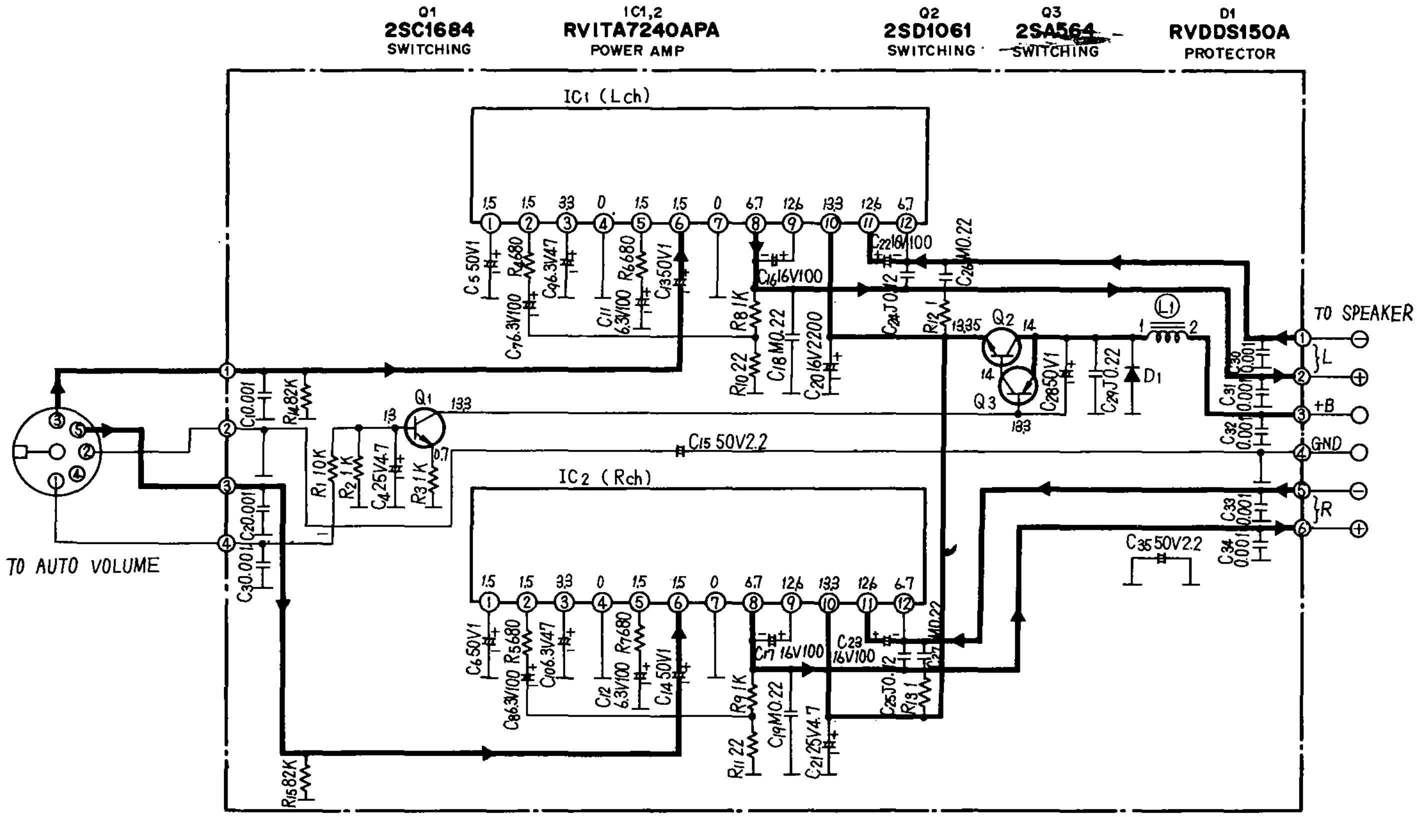


Fig. 10

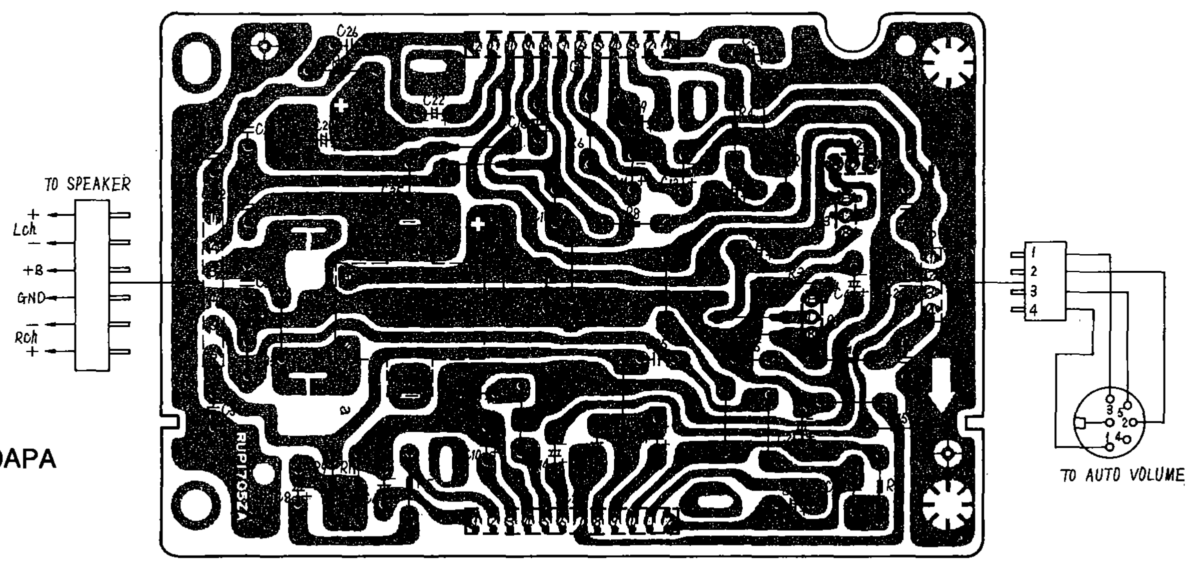
SCHEMATIC DIAGRAM MODEL RM-M1100



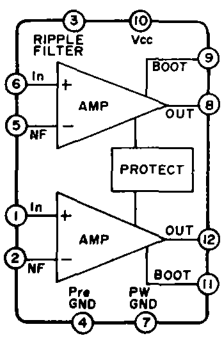
Note:
DC voltage measurements are taken with electronic voltmeter from negative voltage line.

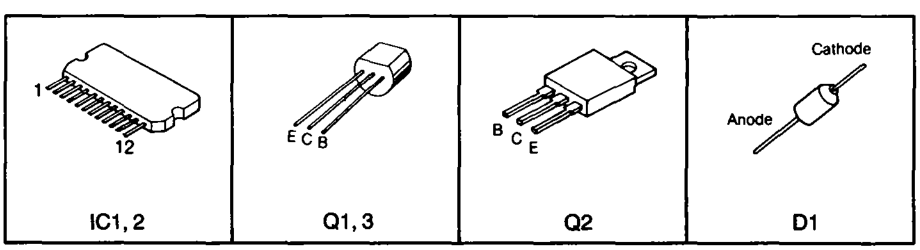
Tape & AF Signal
+Voltage Line

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RM-M1100



IC1, 2 RVITA7240APA





■REPLACEMENT PARTS LIST······························· RM-M1100

(RD83072081C1)

Notes:

1. Important safety notice.
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. The S mark indicates service standard parts and may differ from production parts.
3. RESISTORS & CAPACITORS
   Unless otherwise specified.
   All resistors are in OHMS (Ω) K=1000Ω, M=1000kΩ
   All capacitors are in MICRO FARADS (μF) P=μμF

*Type & Wattage of Resister

Type

ERC:Solid	ERX:Metal Film	ERW:Wirewound Resister
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resister
RRD:Chip	ERO:Metal Film	ERF:Cement Resister

Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W

*Type & Voltage of Capacitor

Type

ECFW:Semi-conductor	ECCD,ECKD,ECBT:Ceramic
ECQS:Styrol	ECQM,ECQV,ECQG:Polyester
ECUX:Chip	ECEA,ECSZ :Electrolytic
ECMS:Mica	ECQP :Polypropylene

Voltage

ECQ Type	ECQG, ECQV, Type	ECSZ Type	Others	
1H: 50V	0,5: 50V	0F:3.15V	0J :6.3V	1H,1V,50: 50V
2A:100V	1:100V	1A:10V	1A :10V	1J : 63V
2E:500V	2:200V	1V:35V	1C :16V	2A :100V
2H:500V		0J:6.3V	1E,25:25V	

Ref.No.	Part No.	Part Name & Description	Per Set	
		INTEGRATED CIRCUITS, TRANSISTORS AND DIODE		
IC1,2	RVITA7240APA	IC	2	
Q1	2SC1685-Q	Transistor (Si)	1	S
Q2	2SD1061S	Transistor (Si)	1	
Q3	2SA722-S	Transistor (Ge)	1	S
D1	RVDDS150A	Diode (Si)	1	S
		COIL		
L1	RLT6G4A	Coil, Choke	1	
		ELECTRICAL PARTS		
E1	RMX246Z	Insulator	1	
E2	RMX247Z	Insulator, Circuit Board	1	
E3	RHG1083Z	Rubber, Circuit Board	1	
E4	RHG599Z	Rubber, Bracket	4	
E5	RHM161Z	Spacer, Bracket	4	
E6	RKC83Z	Bracket, Amp	1	
E7	RGT1034Z	Name Plate	1	
E8	RJP0F11Z	Din Cord	1	
E9	RJP0F12Y	Speaker Harness	1	
E10	XSN5+16S	Screw, Bracket M'tg	4	S
E11	XWA5B	Washer	4	S
E12	XYN3+F12	Screw, IC M'tg	4	
E13	XTV3+10G	Screw, Circuit Board	4	
E14	XTV3+10J	Screw, Circuit Board M'tg	1	
E15	XWG5F16	Washer	4	S
	RHE7033Z	Nut, Power Amp M'tg	2	

Ref. No.	Part No.	Value	
	RESISTORS		
R1	ERD25FJ103	10K	S
R2	ERD25FJ102	1K	S
R3	ERD25FJ102	1K	S
R4	ERD25FJ681	680	S
R5	ERD25FJ681	680	S
R6	ERD25FJ681	680	S
R7	ERD25FJ681	680	S
R8	ERD25FJ102	1K	S
R9	ERD25FJ102	1K	S
R10	ERD25FJ220	22	S
R11	ERD25FJ220	22	S
R12	ERD25FJ1R0	1	S
R13	ERD25FJ1R0	1	S
R14	ERD25TJ823	82K	S
R15	ERD25TJ823	82K	S
	CAPACITORS		
C1	ECKD1H102ZF	0.001	
C2	ECKD1H102ZF	0.001	
C3	ECKD1H102ZF	0.001	
C4	ECEA25Z4R7	4.7	S
C5	ECEA50Z1	1	S
C6	ECEA50Z1	1	S
C7	ECEA1AS101	100	S
C8	ECEA1AS101	100	S
C9	ECEA1AS470	47	S
C10	ECEA1AS470	47	S
C11	ECEA1AS101	100	S
C12	ECEA1AS101	100	S
C13	ECEA50Z1	1	S
C14	ECEA50Z1	1	S
C15	ECEA1HN2R2	2.2	
C16	ECEA1ES101	100	S
C17	ECEA1ES101	100	S
C18	ECQG1H224MZ	0.22	
C19	ECQG1H224MZ	0.22	
C20	ECEA1CSS222	2200	
C21	ECEA25Z4R7	4.7	S
C22	ECEA1ES101	100	S
C23	ECEA1ES101	100	S
C24	ECQG05124JZ	0.12	
C25	ECQG05124JZ	0.12	
C26	ECQG1H224MZ	0.22	
C27	ECQG1H224MZ	0.22	
C28	ECEA50Z1	1	S
C29	ECQG05224JZ	0.22	
C30	ECKD1H102ZF	0.001	
C31	ECKD1H102ZF	0.001	
C32	ECKD1H102ZF	0.001	
C33	ECKD1H102ZF	0.001	
C34	ECKD1H102ZF	0.001	
C35	ECEA1HN2R2	2.2	

ORDER NO. RD83072083C1

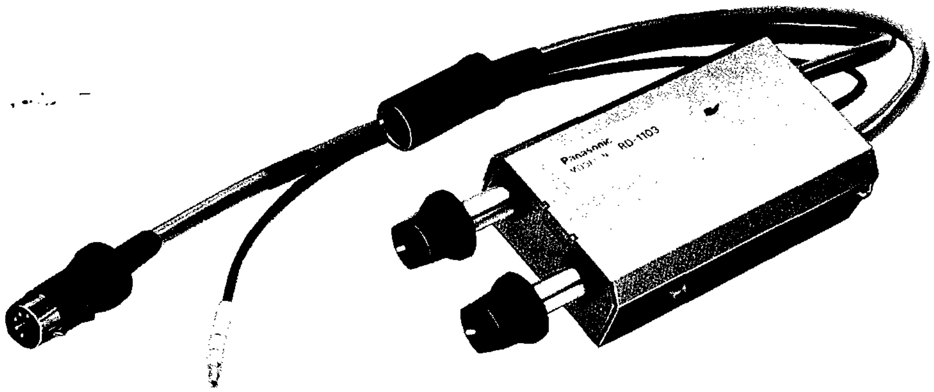
Service Manual

Car Audio

AUTO VOLUME

RD-1103

CUSTOM-MADE FOR HONDA



■ SPECIFICATIONS

Power Source:	DC 12 V (From RM-1100)
Test Voltage:	DC 14 V
Power Consumption:	20 mA
Auto Volume OFF Gain:	0 dB
Auto Volume Gain Control:	6~16 dB
Input Speed Control:	0~240 km/H
Tone Control:	10 dB (10 kHz)
Dimension:	54 (W)×25 (H)×97 (D) mm (2⅛"×1"×3⅞")
Weight:	0.18 kg (6½ oz)

Specifications are subject to change without notice.

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Ave, 65 De Infanteria, KM 9.7
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LOCATION OF CONTROLS AND COMPONENTS

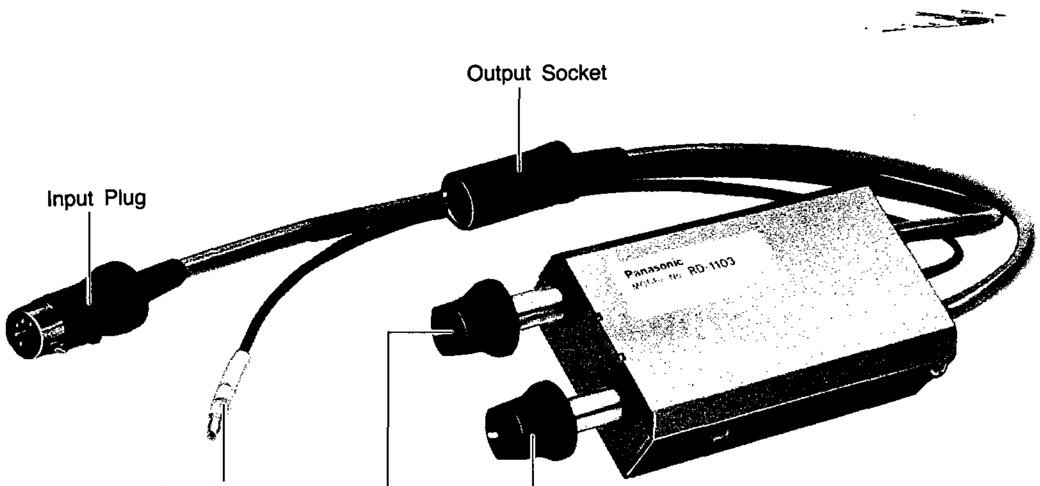


Fig. 1

DISASSEMBLY INSTRUCTIONS

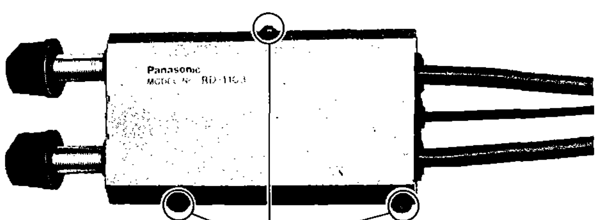


Fig. 2

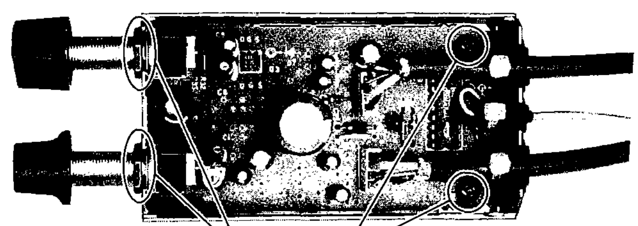
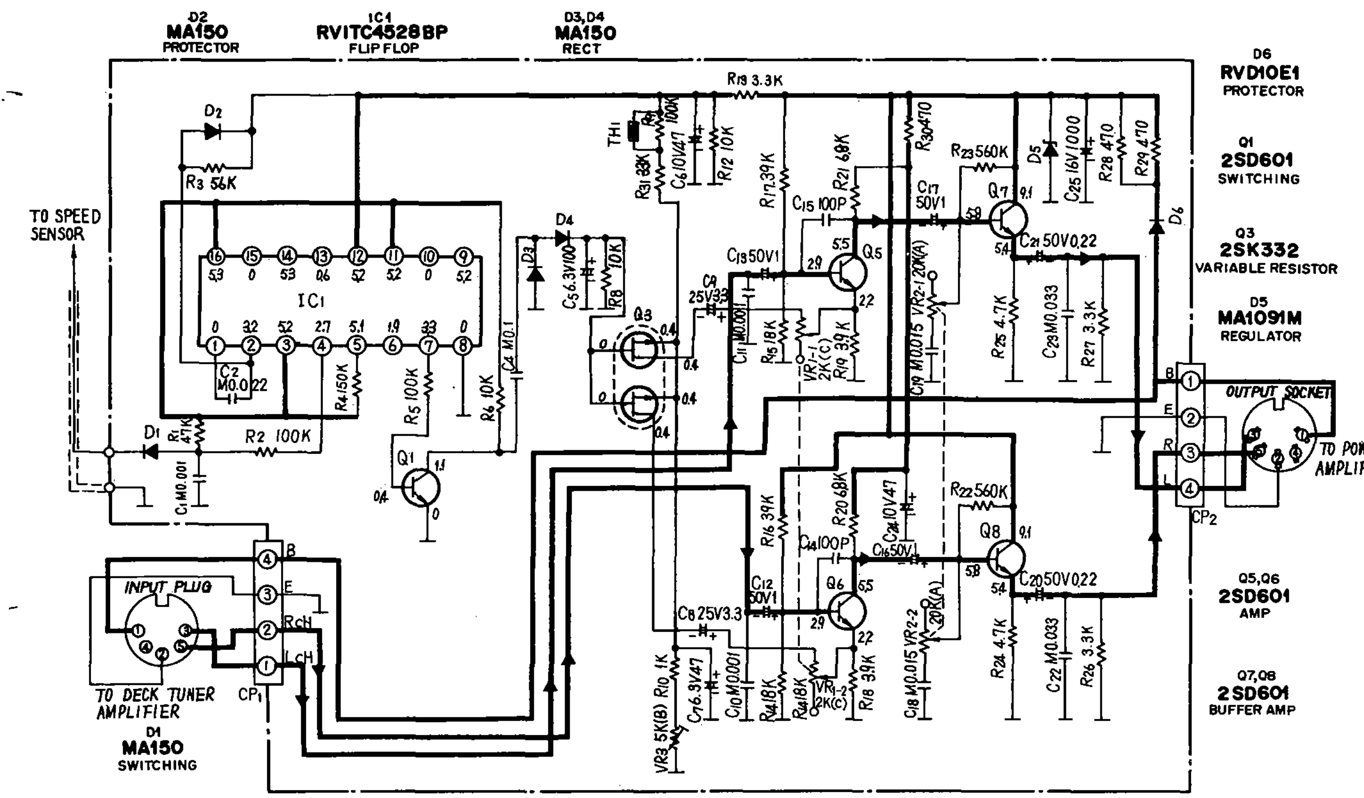


Fig. 3

Ref. No.	Procedure	Shown in Fig.—	To remove—.	Remove—.
1	1	2	Cover	Screw (3×6) .... (A)×3
2	1, 2	3	Circuit Board	Screw (3×6) .... (B)×2
3		3		Nut (∅9) .... (C)×2

SCHEMATIC DIAGRAM MODEL RD-1103 (One FET Type)

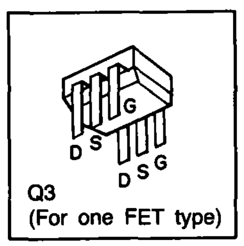


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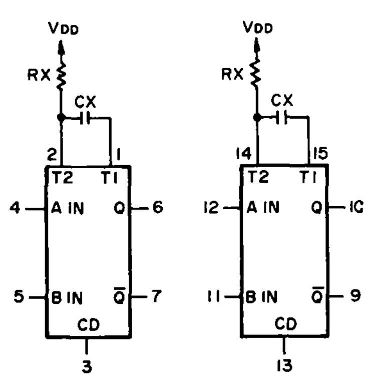
1. DC voltage measurements are taken with electronic voltmeter from negative voltage line.
2. VR1: Auto volume control VR.
   VR2: Tone control VR.
   VR3: Gain adjustment VR.

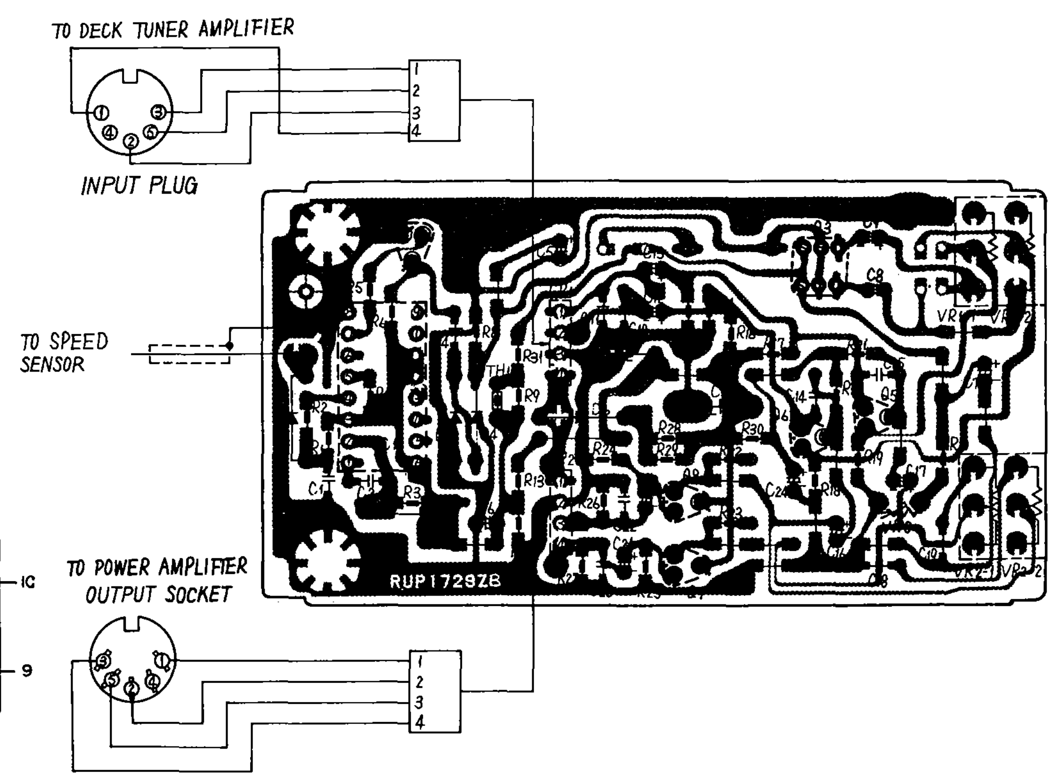
—— Tape & AF Signal
—— +Voltage Line

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RD-1103 (One FET Type)

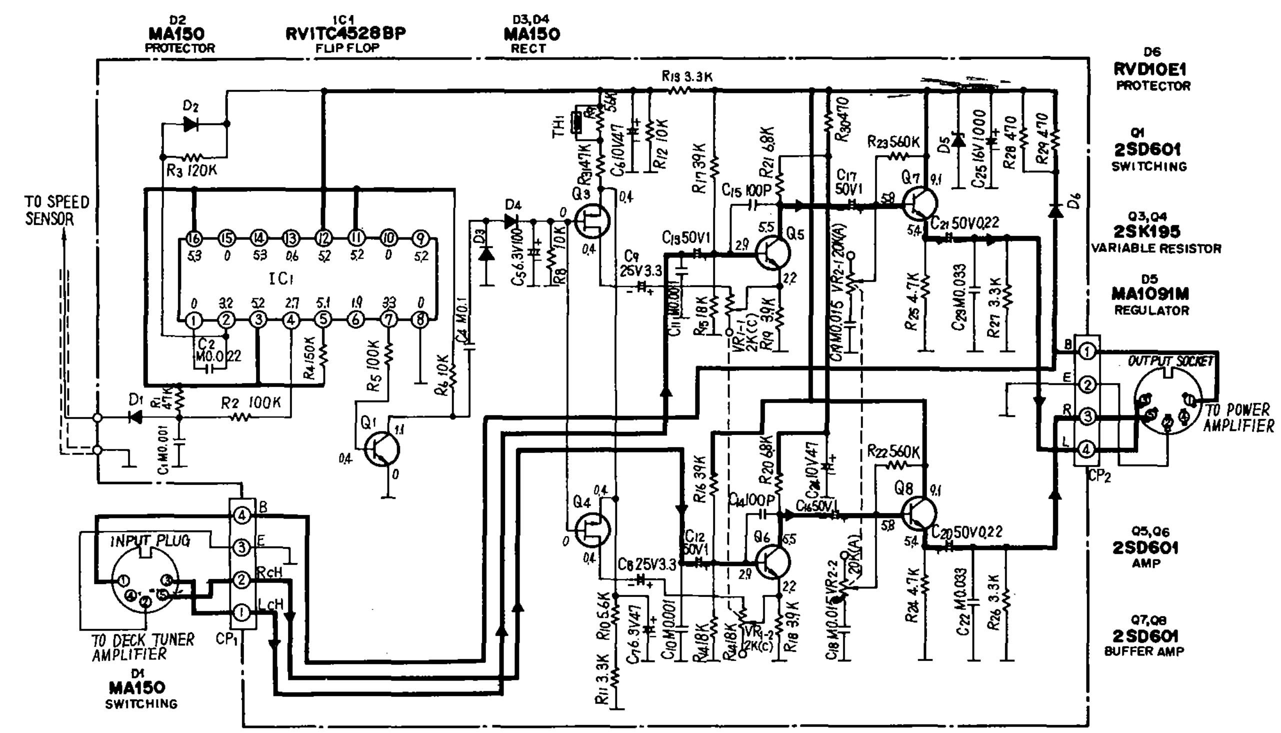


IC1 RVITC4528BP





SCHEMATIC DIAGRAM MODEL RD-1103 (Two FET Type)

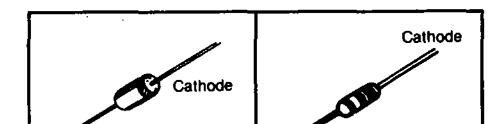


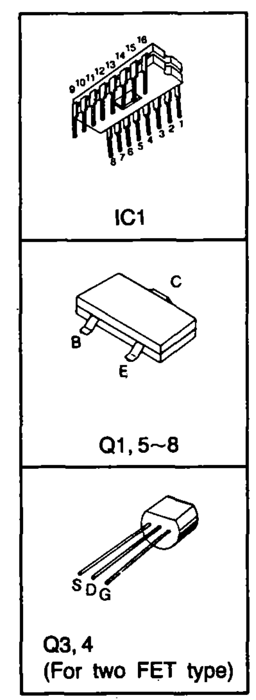
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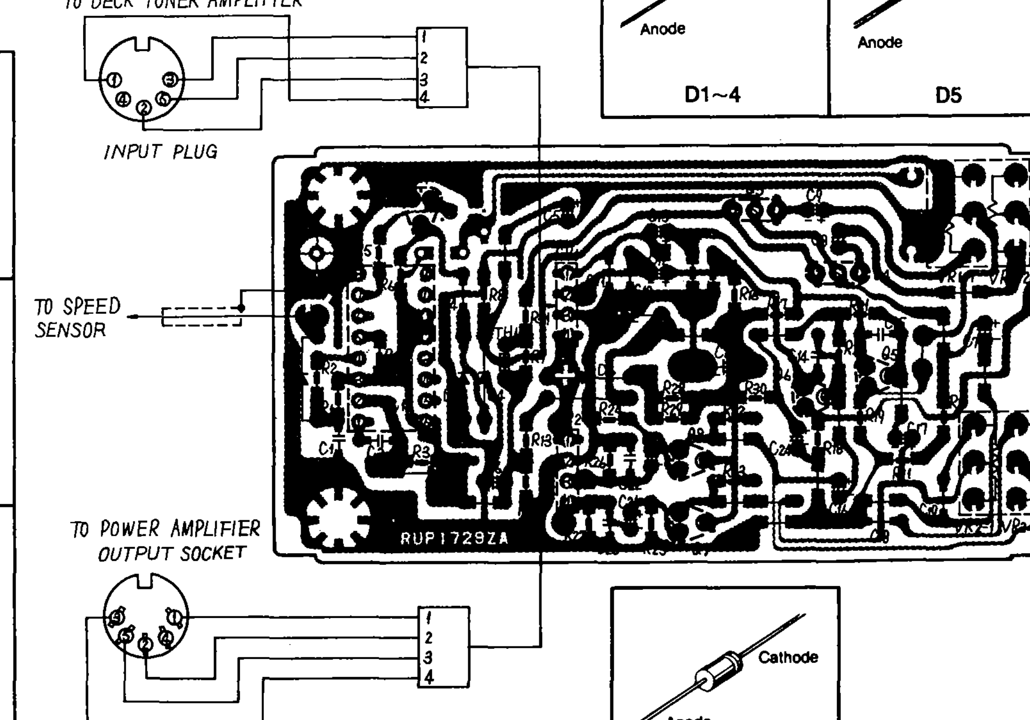
1. DC voltage measurements are taken with electronic voltmeter from negative voltage line.
2. VR1: Auto volume control VR.
   VR2: Tone control VR.

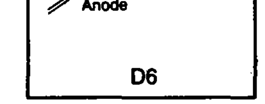
—— Tape & AF Signal
—— +Voltage Line

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RD-1103 (Two FET Type)









 RD-1103

MEASUREMENTS AND ADJUSTMENTS

■ GAIN ALIGNMENT (For one FET Type)

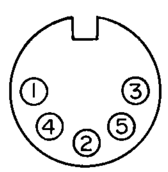
1. Set tone control to maximum.
2. Auto volume control to center.

RC OSCILLATOR ①	RC OSCILLATOR ②	AC VOLTMETER	ADJUSTMENT	REMARKS
Connect to input plug. ③...Lch ⑤...Rch ②...E (1 kHz, 1 mV)	Connect to speed sensor. (100 Hz, 5 V) (Rectangular Wave)	Connect to output socket. ③...Lch ⑤...Rch ②...E	VR3	Adjust VR3 so that 6±0.5 dB is increased to the output value on condition that speed sensor is disconnected.



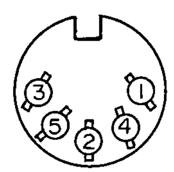
Rectangular Wave

Fig. 4



Input Plug

Fig. 5



Output Socket

Fig. 6

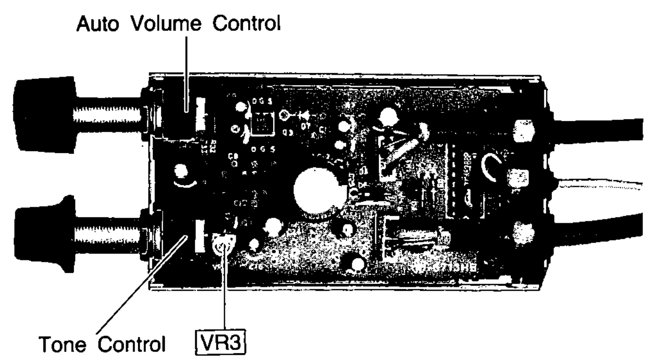


Fig. 7

ELECTRICAL PARTS LOCATION

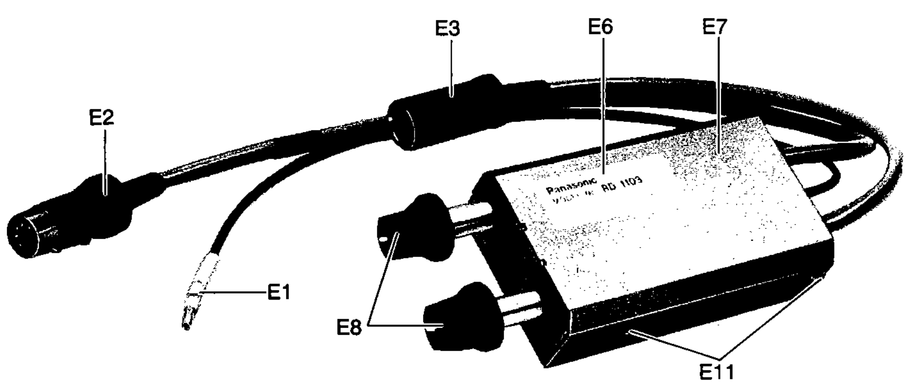


Fig. 8

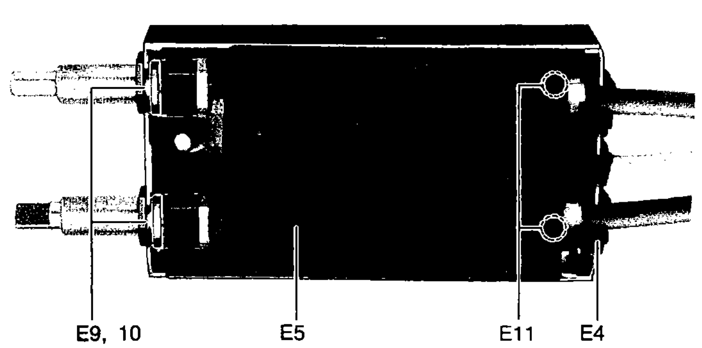


Fig. 9

■REPLACEMENT PARTS LIST·····························RD-1103

(RD83072083C1)

Notes:

1. Important safety notice.
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. The S mark indicates service standard parts and may differ from production parts.
3. RESISTORS & CAPACITORS
   Unless otherwise specified.
   All resistors are in OHMS (Ω) K=1000Ω, M=1000kΩ
   All capacitors are in MICRO FARADS (μF) P=μμF

* Type & Wattage of Resister

Type

ERC:Solid	ERX:Metal Film	ERW:Wirewound Resister
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resister
RRD:Chip	ERO:Metal Film	ERF:Cement Resister

Wattage

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W

* Type & Voltage of Capacitor

Type

ECFW:Semi-conductor	ECCD,ECKD,ECBT:Ceramic
ECQS:Styrol	ECQM,ECQV,ECQG:Polyester
ECUX:Chip	ECEA,ECSZ :Electrolytic
ECMS:Mica	ECQP :Polypropylene

Voltage

ECQ Type	ECQG, ECQV, Type	ECSZ Type	Others	
1H: 50V 2A:100V 2E:500V 2H:500V	0,5: 50V 1:100V 2:200V	0F:3.15V 1A:10V 1V:35V 0J:6.3V	0J :6.3V 1A :10V 1C :16V 1E,25:25V	1H,1V,50: 50V 1J : 63V 2A :100V

Ref.No.	Part No.	Part Name & Description	Per Set	
		INTEGRATED CIRCUIT, TRANSISTORS AND DIODES		
IC1	RVITC4528BP	IC	1	
Q1,5∿8	2SD601Q	Transistor (Si)	5	
Q3	2SK332D	Transistor (Si), For One FET Type	1	
Q3,4	2SK195F1	Transistor (Si), For Two FET Type	2	
D1∿4	MA161	Diode (Si)	4	S
D5	MA1091M	Diode (Si)	1	
D6	SM112	Diode (Si)	1	S
		THERMISTOR		
Th1	RRT103	Thermistor	1	
		VARIABLE RESISTORS		
VR1	EVK07A330C23	Variable Resistor, 2KΩ (C)	1	
VR2	EVK93A330A24	Variable Resistor, 20KΩ (A)	1	
VR3	EVNA6AA00B53	Variable Resistor, Pre-Set, 5KΩ (B), For One FET Type	1	
		ELECTRICAL PARTS		
E1	RJP0F14Y	Plug with Cord	1	
E2	RJP0F15Y	Plug with Cord, CP1	1	
E3	RJS0R2Y	Socket with Cord, CP2	1	
E4	RHG2033Z	Rubber, Cord	1	
E5	RHG1080Z	Cushion, Circuit Board	1	
E6	RGT1036Z	Name Plate	1	
E7	RKF668Z	Cover	1	
E8	RBN664Z	Knob	2	
E9	XWSR9FZ	Washer	2	
E10	RHE7034Z	Nut	4	
E11	XTV3+6F	Screw, Circuit Board M'tg	5	

Ref. No.	Part No.	Value
	RESISTORS	
R1	RRD18XJ473	47K
R2	RRD18XJ104	100K
R3	RRD18XJ563	56K
R4	RRD18XJ154	150K
R5	RRD18XJ104	100K
R6	RRD18XJ103	10K
R8	RRD18XJ103	10K
R9	RRD18XJ104	100K
R10	RRD18XJ102	1K
R12	RRD18XJ103	10K
R13	RRD18XJ332	3.3K
R14	RRD18XJ183	18K
R15	RRD18XJ183	18K
R16	RRD18XJ393	39K
R17	RRD18XJ393	39K
R18	RRD18XJ392	3.9K
R19	RRD18XJ392	3.9K
R20	RRD18XJ682	6.8K
R21	RRD18XJ682	6.8K
R22	RRD18XJ564	560K
R23	RRD18XJ564	560K
R24	RRD18XJ472	4.7K
R25	RRD18XJ472	4.7K
R26	RRD18XJ332	3.3K
R27	RRD18XJ332	3.3K
R28	RRD18XJ471	470
R29	RRD18XJ471	470
R30	RRD18XJ471	470
R31	RRD18XJ333	33K
	CAPACITORS	
C1	ECUX1H102MD	0.001
C2	ECUX1H223MD	0.022
C4	ECUX1E104MD	0.1
C5	ECEA0JK101	100
C6	ECEA1AK470	47
C7	ECEA0JK470	47
C8	ECEA1EK3R3	3.3
C9	ECEA1EK3R3	3.3
C10	ECUX1H102MD	0.001
C11	ECUX1H102MD	0.001
C12	ECEA1HK010	1
C13	ECEA1HK010	1
C14	ECUX1H101K	100P
C15	ECUX1H101K	100P
C16	ECEA1HK010	1
C17	ECEA1HK010	1
C18	ECUX1E153MD	0.015
C19	ECUX1E153MD	0.015
C20	ECEA1HKR22	0.22
C21	ECEA1HKR22	0.22
C22	ECUX1E333MD	0.033
C23	ECUX1E333MD	0.033
C24	ECEA1AK470	47
C25	ECEA1CSS102	0.001

Ref. No.	Part No.	Value

ORDER NO. RD83092082C1

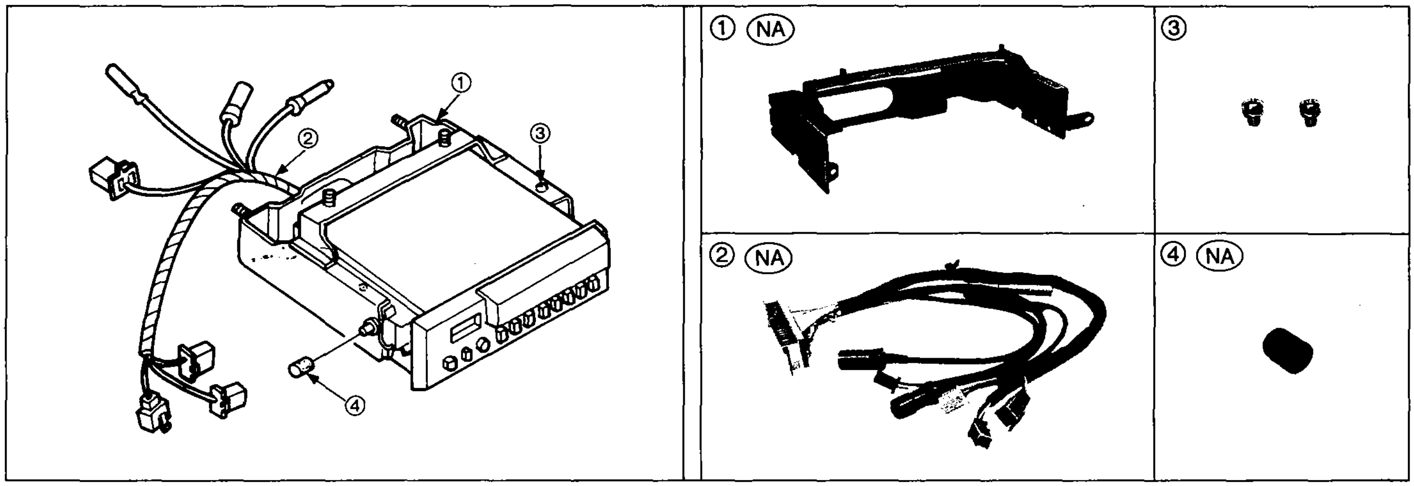
Service Manual

Car Audio

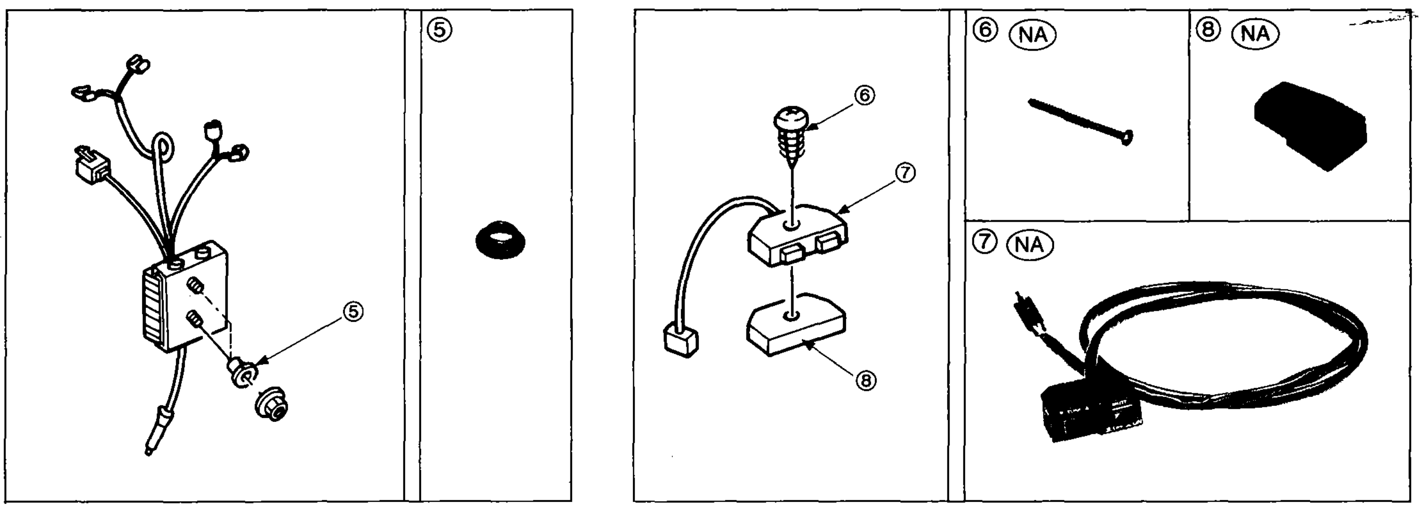
RM-1100 ACCESSORIES

CUSTOM-MADE FOR HONDA

■ RADIO CASSETTE ACCESSORY



■ POWER AMPLIFER ACCESSORY



■ REPLACEMENT PARTS LIST

Note: Parts or components marked with (NA) and unlisted are not available as replacement parts.

Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
1	———	Bracket	1	
2	———	Harness	1	
3	XYN4+C6	Screw, Harness and Bracket M'tg	8	
4	———	Cap, Radio Bracket	1	
5	RHM173Z	Collar, Main AMP.	2	
6	———	Screw, Remote Switch	1	
7	———	Remote Switch	1	
8	———	Spacer, Remote Switch	1	

Panasonic®

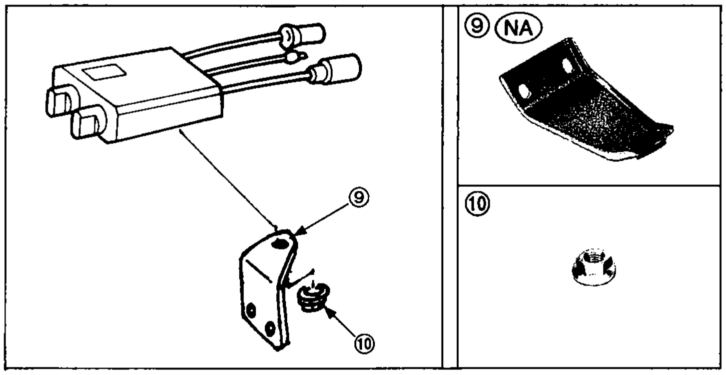
Matsushita Engineering and Service Company
50 Meadowland Parkway,
Secaucus. New Jersey 07094

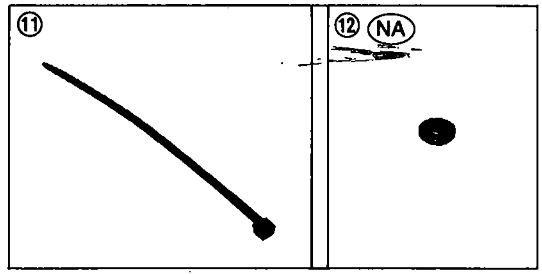
Panasonic Hawaii Inc.
91-238 Kauhi St. Ewa Beach
P.O. Box 774
Honolulu, Hawaii 96808-0774

Matsushita Electric of Canada Limited
5770 Ambler Drive, Mississauga,
Ontario, L4W 2T3

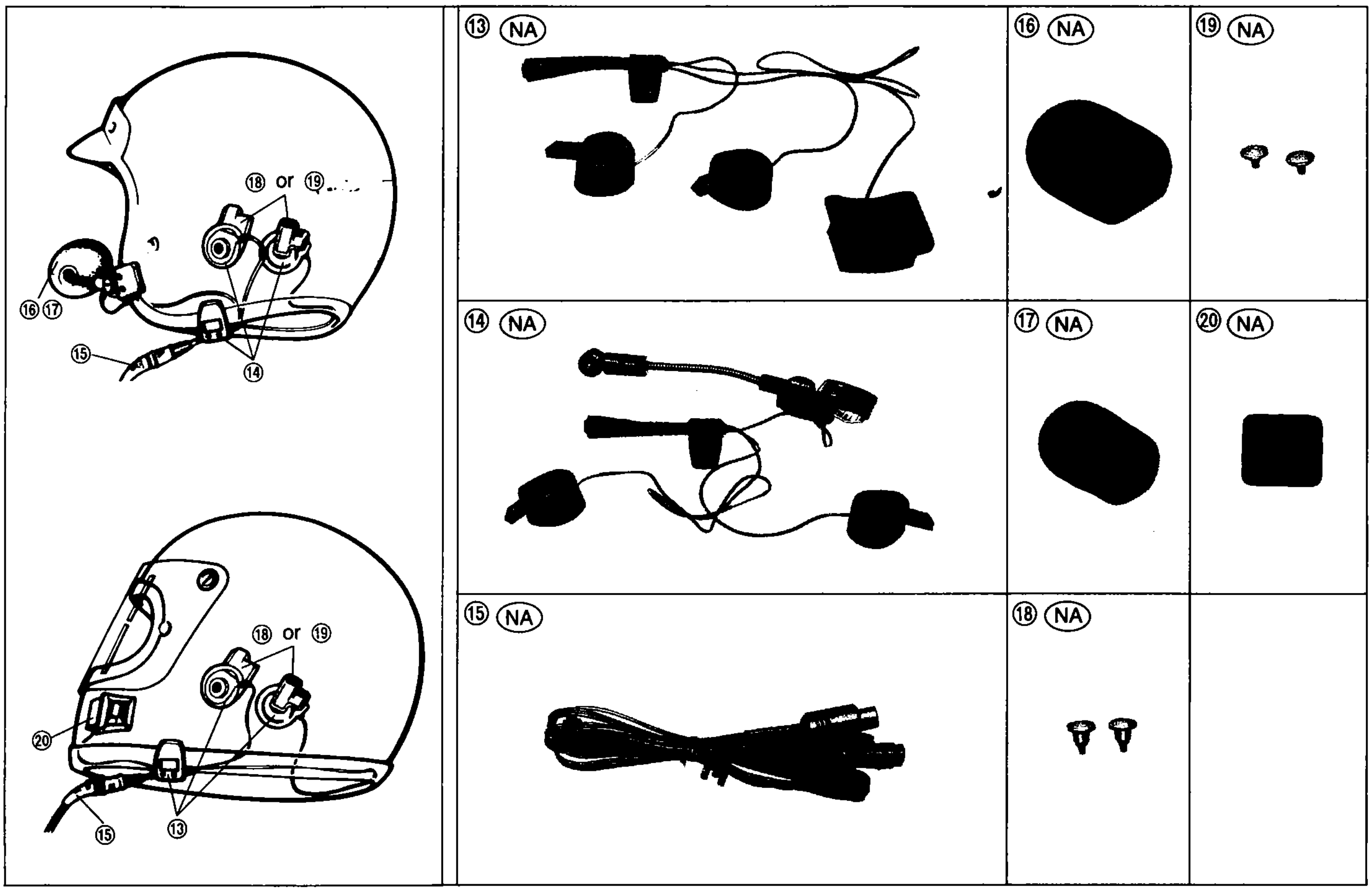
Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.
Ave, 65 De Infanteria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630

■ AUTO VOLUME ACCESSORY



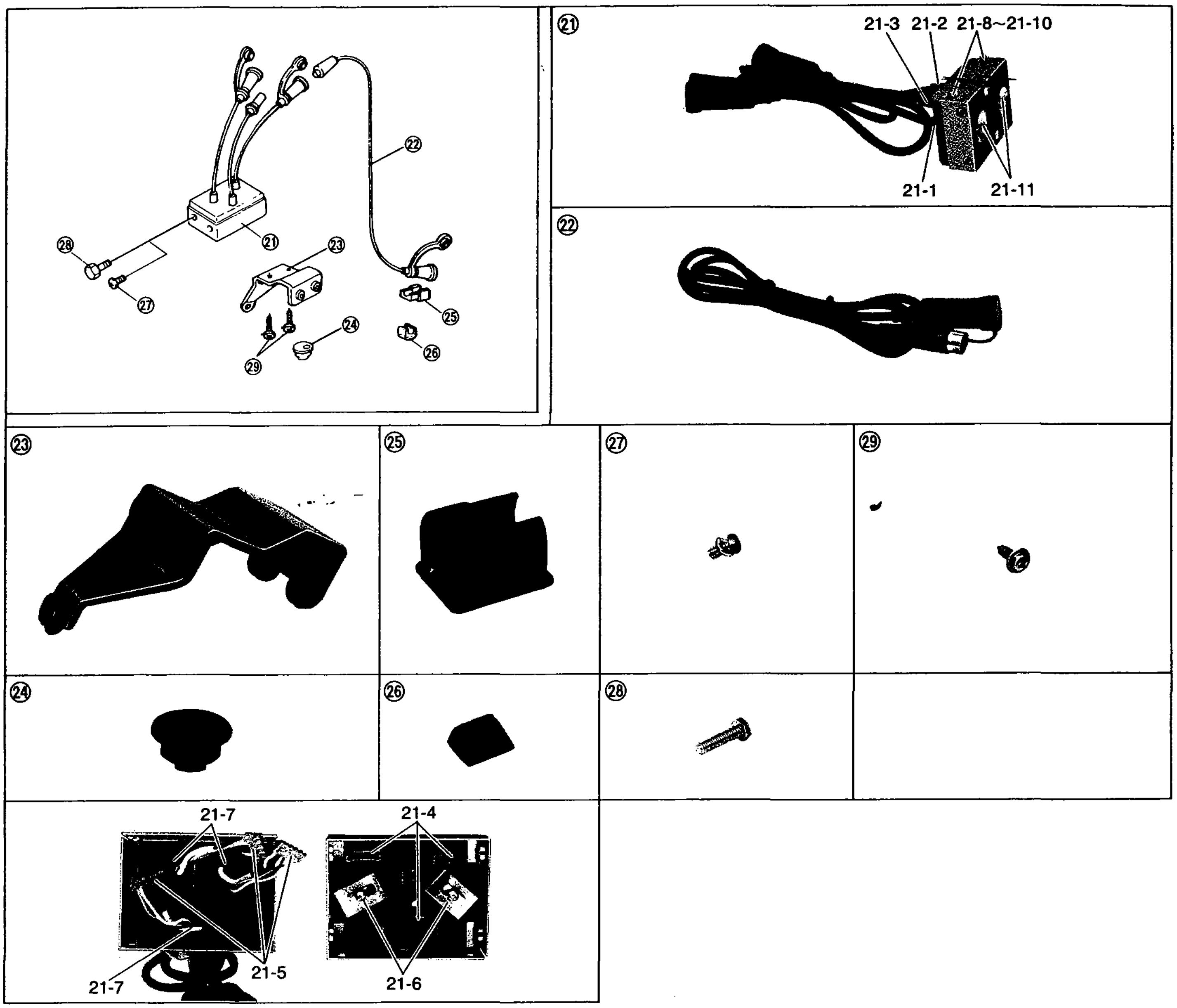


■ HEAD SET ACCESSORY



Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
9	———	Bracket, Auto Volume	1	
10	RHE7035Z	Nut, Auto Volume	1	
11	RHR168Z	Wire Band	2	
12	———	Cap, Socket Bolt	4	
13	———	Head set (Full-Face Type)	1	
14	———	Head set (Open-Face Type)	1	
15	———	Cord (with Plug)	1	
16	———	Wind Shield (Open-Face Type)	1	
17	———	Wind Shield (Open-Face Type)	1	
18	———	Screw	2	
19	———	Screw	2	
20	———	Wind Shield (Full-Face Type)	1	

■ JUNCTION BOX ACCESSORY



Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
21	RJE144Z	Junction Box	1	
21–1	RWR49210A20	Cord Ass'y, AM/FM Radio	1	
21–2	RWR49211A20	Cord Ass'y, Passenger	1	
21–3	RWR49212A20	Cord Ass'y, Driver	1	
21–4	RWR4023A20	Plug,	3	
21–5	RWR4001A20	Socket	3	
21–6	RWR6501A20	Speed Nut	2	
21–7	RWR6502A20	Stopper	3	
21–8	XSN3+5FN	Screw	4	
21–9	XWG3FN	Washer	4	
21–10	XWA3FN	Washer	4	
21–11	XSN4+6FN	Screw	2	
22	RJP0F19Z	Cord (with Plug)	1	
23	RWV6323A9	Bracket Ass'y	1	
24	RHG725Z	Grommet, Harness	1	
25	RHG2044Z	Connector Holder	2	
26	RHG2045Z	Hook Lead	3	
27	XYN4+C6	Screw	4	
28	XVG4A16	Bolt	4	
29	XTW4+12D	Screw	2	